THE ROLE OF EMOTION IN CONSUMERS' INTENTIONS TO SELECT ECO-FRIENDLY RESTAURANTS: BROADENING AND DEEPENING THE THEORY OF PLANNED BEHAVIOR

By

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TABLE OF CONTENTS

Chapter Page

Chapter Page

LIST OF TABLES

Table Page

Table Page

LIST OF FIGURES

Figure Page

CHAPTER I

INTRODUCTION

The Trend to Go Green in the Restaurant Industry

The trends of sustainability and pro-environmental issues are driving many businesses to adopt green marketing practices through the development of services and products. A number of consumers have shown an increased positive attitude and perception toward companies sensitive to environmental matters (Han, Hsu, & Lee, 2009; Han & Kim, 2010; Hu, Parsa, & Self, 2010; Jeong, 2010). Green consumerism has significantly influenced ecologically conscious decisions in various business segments and modified manufacturing processes and operation procedures (D'Souza & Taghian, 2005; Wolfe & Shanklin, 2001). The term *green* is alternatively known as "eco-friendly," "environmentally friendly," "ecological," "pro-environmental," or "sustainable" (Han et al., 2009; Laroche, Bergeron, & Barbaro-Forleo, 2001; Pizam, 2009).

Consistent with this phenomenon, restaurants have incorporated eco-friendly business practices into their products and services. According to the results of a survey conducted by the National Restaurant Association (NRA) (2008), restaurateurs continue

to become more eco-friendly by taking actions such as reducing energy and water usage, which is all in step with consumers' interests in environmental issues. In addition, NRA (2008) reported that approximately 40% of full-service restaurant operators and 30% of quick-service operators planned to devote more of their 2009 budgets to green initiatives.

The NRA reported that 44% of American restaurant consumers surveyed in 2008 indicated that they were likely to make a restaurant choice based on an operation's practices in the areas of energy and water conservation. Vieregge, Scanlon, and Huss (2007) found that more than 67% of consumers of McDonald's restaurant prefered local products. More recently, 57% of consumers surveyed reported that they were likely to select restaurants based on how environmentally friendly they are (NRA, 2011). In addition, empirical consumer studies have supported the conclusions that attitude toward product origin, product extrinsic cues, product convenience, and health influence consumers' willingness to pay a premium for organic products (Botonaki, Polymeros, Tsakiridou, & Mattas, 2006). According to Lockie, Lyons, Lawrence, and Mummery (2002), health, taste, and environmental benefits are important attributes in the selection of organic foods.

Theoretical and empirical investigations regarding the formation of consumers' intentions to select eco-friendly products have been ongoing. However, empirical work on the selection of eco-friendly restaurants, which is considered to be an ecological behavior, is just beginning to gain attention (Hu et al., 2010; Jeong, 2010; Tan & Yeap, 2012). Hence, this dissertation examines consumers' intentions to select eco-friendly restaurants while proposing that affect (i.e., emotion) can play a substantial role in this ecological decision-making process.

Statement of the Problem

"Would better prediction of behavior be achieved if more emphasis were placed on the emotional determinants of behavior?" –Morris, Woo, Geason, and Kim (2002)

Emotion has to date attracted little attention because decision making has traditionally been viewed as a cognitive process (Loewenstein & Lerner, 2003), although incorporating emotion in decision-making models can greatly increase their explanatory power (Bagozzi, Gopinath, & Nyer, 1999; Cohen, Pham, & Andrade, 2008; Erevelles, 1998; Loewenstein & Lerner, 2003; Mellers, Schwartz, & Ritov, 1999). According to Morris et al. (2002), attitude measures in consumer behavior research rely almost entirely on cognitive dimensions, yet the cognitive-based models fail to properly measure feelings associated with the sources of information, therefore assigning the affective processes a relatively minor role. The failing to understand the role of emotions by focusing on cognitive processes only hampers the understanding of consumers' behaviors (Morris et al., 2002). Bagozzi et al. (1999) stressed the importance of emotions in marketing and consumers' decision making because they influence information processing, responses to persuasive appeals, initiation of goal setting, and enactment of goal-directed behaviors. Moreover, some empirical findings support the significant role of emotion in consumers' ecological behavior (Carrus, Passafaro, & Bonnes, 2008; Kals, Schumacher, & Montada, 1999), which is the main proposition of this dissertation. Malhotra (2005) suggested that "more research is needed to understand the nature of the cognitive and affective constructs and how they interact to influence overall attitude, intention, and behavior" (p. 481).

Thus, this study intends to propose and explore an emotion-related theoretical framework based on the Ajzen's (1991) Theory of Planned Behavior (TPB) model to

examine the relationship between the variables and explain consumers' acceptance of and engagement in ecological behavior. The investigation of the underlying factors leading to consumers' intentions to select an eco-friendly restaurant will provide further insights into the consumers' decision-making processes, which is essential for the development of green marketing strategies in the restaurant context.

Research Questions

Considering that the selection of an eco-friendly restaurant is a planned behavior, the theoretical foundation provided by the TPB is relevant for this study. The TPB is one of the well-established social-psychological theories for explaining and predicting environmental behavior (Bamberg & Schmidt, 2003; Taylor & Todd, 1997).

The premise of the TPB is that human beings are rational and use a variety of information when making a decision to engage in a behavior (Ajzen, 1991). Briefly, the TPB predicts that behavior is influenced by behavioral intentions, which are a function of "attitude toward the behavior" (i.e., the general feeling of favorableness or unfavorableness for that behavior), "subjective norm" (i.e., the perceived opinion of other people in relation to the behavior in question), and "perceived behavioral control" (i.e., the perceived ease or difficulty of performing the behavior) (Ajzen, 1991). According to Rivis, Sheeran, and Armitage (2009), "the TPB is perhaps the most influential theory in the prediction of social and health behaviors" (p. 2985). Figure 1 depicts the TPB, indicating the factors that determine a person's behavior.

The TPB has been successfully applied to a wide range of ecological behaviors (Han, Hsu, & Sheu, 2010; Han & Kim, 2010; Harland, Staats, & Wilke, 1999; Kim &

Han, 2010; Vermeir & Verbeke, 2008). For example, Han et al. (2010) found that the TPB model's constructs—namely, attitude, subjective norm, and perceived behavioral control—positively influence the intention to stay at a green hotel.

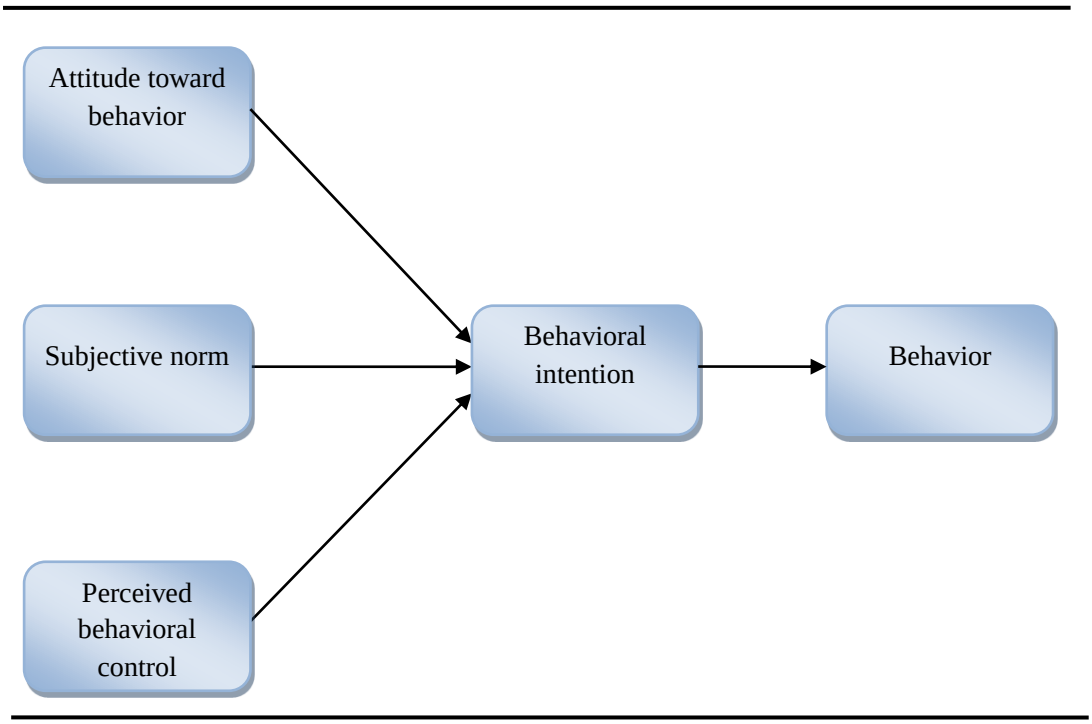


Figure 1. The Theory of Planned Behavior

In addition, Han and Kim (2010) found that the extended TPB model improved the variance in the intention to select green hotels. The other extended TPB model by Kim and Han (2010) provided a satisfactory fit to the data in terms of customers' intention to pay conventional-hotel prices at a green hotel. The findings of Vermeir and Verbeke (2008) revealed that 50% of the variance in intention to consume sustainable dairy products was explained by the combination of personal attitudes, perceived social influences, perceived consumer effectiveness, and perceived availability. According to Harland, Staats, and Wilke (1999), the addition of personal norms to the TPB led to a better explanation of intention and

behaviors in ecological behaviors (e.g., use of unbleached paper, use of energy-saving light bulbs, turning off of the faucet while brushing teeth). Therefore, the current study develops and applies an extended TPB model to examine consumers' intentions to select eco-friendly restaurants over the alternative. By applying the TPB, it is possible to examine the influence of personal determinants and social surroundings as well as non-volitional determinants on intention (Han et al., 2010) and eventually the selection of eco-friendly restaurants. Thus, the following research question was developed:

(1) Which construct of the TPB model explains the greatest variance in the consumers' behavioral intention to select an eco-friendly restaurant?

The TPB has been criticized by other researchers for ignoring the emotional determinants of behavior (Conner & Armitage, 1998). As Eagly, Mladinic, and Otto (1994) proposed, the common assumption that people's attitudes derive from their cognitions and attitude in the TPB is more likely based on cognitive (or evaluative) judgments (Richard, van der Pligt, & de Vries, 1996). Ajzen supported that the TPB framework does not sufficiently describe the role of emotion (Ajzen, 1989). Godin and Kok (1996) pointed out that the TPB appears to perform less efficiently in the prediction of behaviors that have a strong affective or irrational component rather than a cognitive one. Moreover, ecological behavior cannot be considered to be a plain result of a rational decision (Kals et al., 1999). Kals et al. (1999) suggested that affective factors such as feelings of guilt, indignation about insufficient nature conservation, and interest in nature play an important role in ecological behavior. Therefore, to better predict and explain societal decision making and behavior, noncognitive and affective aspects of behavior also need to be considered (Breckler & Wiggins, 1989; Edwards, 1990; Richard et al.,

1996; Zajonc, 1980). This argument serves as a part of the theoretical development backbone for this study. The TPB, which is highly cognitive, is augmented with affective constructs to predict and explain consumer behavioral intention because human behavior is better explained if affective processes are taken into consideration (Breckler & Wiggins, 1989; Edwards, 1990; Millar & Tesser, 1986; Pfister & Böhm, 1992; Zajonc, 1980).

Rivis et al. (2009) suggested anticipated affect (i.e., anticipated emotion) as the construct for considering such an emotional aspect. They emphasized that this construct may make an independent contribution to the prediction of intentions, where "anticipated affect refers to the prospect of feeling positive or negative emotions after performing or not performing a behavior" (p. 2987). Richard et al. (1996) found that anticipated emotion predicted behavioral intentions independently from general attitude (evaluations) toward the behavior within the framework of Ajzen's TPB. In addition, Richard et al. (1996) proposed that the term *attitude* should be reserved strictly for the overall evaluative response.

Furthermore, Lau-Gesk and Meyers-Levy (2009) pointed out the need to conduct consumer research related to properties of emotions beyond their valence that may underlie and differentiate them. The findings of a meta-analysis of anticipated emotion suggested that measures of specific anticipated feelings of regret were more strongly related to intentions than were general anticipated emotion (Rivis et al., 2009), where regret is not a characteristic of people but an experiential state (Beal, Weiss, Barros, & MacDermid, 2005) and is more characteristic of delayed-cost dilemmas' long-term negative consequences (Giner-Sorolla, 2001). According to Bui (2009), anticipated

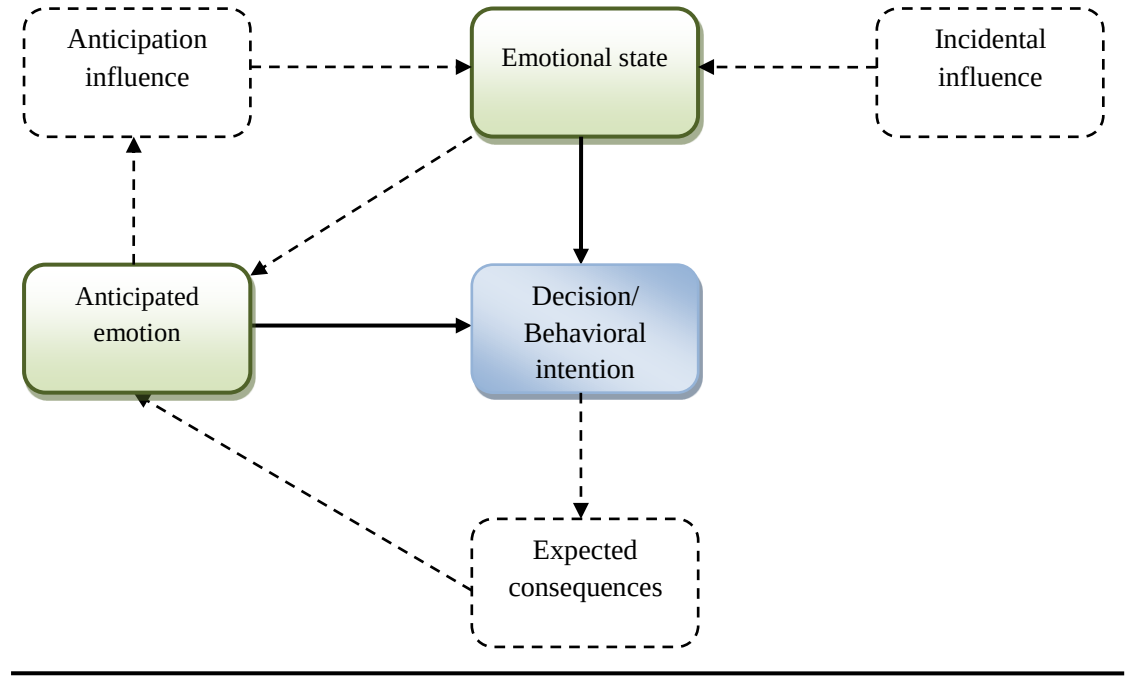
regret is "a counterfactual emotion that is experienced in the present situation when imagining the results of a future outcome" (p. 4). Zeelenberg and Pieters (2007) explained that regret is an affective reaction to bad decision outcomes and a powerful factor in motivating and giving direction to behavior. Hence, the current study uses anticipated regret as the anticipated emotion.

The proposition of this study is that, if people become increasingly aware that particular actions can lead to negative feelings afterwards, they will be more likely to abandon these negative behaviors. As such, it is expected that consumers may feel relatively regretful after having a meal at a non-eco-friendly restaurant because they realize that the restaurant produces unnecessary wastes, potentially leading to negative consequences in nature. In other words, selecting an eco-friendly restaurant can have positive consequences for them. Therefore, this study investigates whether anticipated regret has a partially independent contributing role in the determination of the eco-friendly restaurant selection—namely:

> *(2) Does anticipated regret have a significant influence on consumers' intention to select an eco-friendly restaurant?*
>
> *(3) Does the addition of an emotional component, anticipated regret, to the TPB lead to a better explanation of behavioral intentions beyond the TPB components in the context of eco-friendly restaurant selection?*

In the same vein, marketing communications focusing on changing momentary emotional states, which are experienced at the time of decision making (Gardner, 1987; Loewenstein & Lerner, 2003), would appear to be a suitable method. Unlike anticipated emotions which are stable constructs, emotional states are acceptable as varying constructs over time within each person (Beal et al., 2005); thus, studies capturing intra-

individual variability in emotions are needed (Gooty, Gavin, & Ashkanasy, 2009). Indeed, distinguishing two different ways in which emotions enter into decision making can better explain the different roles played by emotions in decision making (Loewenstein & Lerner, 2003). Loewenstein and Lerner (2003) distinguished two affective influences on decision making: expected emotions (i.e., anticipated emotion) and immediate emotions (i.e., emotional state). The current study refers to the two influences as anticipated emotion and emotional state, as depicted by the solid line in Figure 2. For the purposes of this dissertation, the conceptual model adopted from Loewenstein and Lerner (2003) was simply modified.



Source: Loewenstein and Lerner (2003)

Figure 2. Determinants and Consequences of Anticipated Emotion and Emotional State

According to Loewenstein and Lerner (2003), emotional states exert an indirect impact on decision making. Some empirical studies support that emotional states serve as moderators in their impact on attitude. For example, Williams and Aaker (2002) provided evidence that an ad appeal that portrayed an emotion with a positive emotion (e.g., happy) versus a negative emotion (e.g., sad valence) produced more favorable attitudes. These results are in line with those of Batra and Stayman (1990), who demonstrated results that positive emotions enhance attitude toward a brand through their interaction with two cognitive processes: "(1) a bias against the generation of negative thoughts, leading to a more favorable evaluation of message arguments, and (2) a reduction in total cognitive elaboration, making processing more heuristic than systematic" (pp. 212-213). Furthermore, in terms of another shortcoming of the TPB, Perugini and Bagozzi (2001) asserted that the TPB needs to incorporate explicit motivational content to induce intentions because the TPB fails to consider how intentions become energized. Bagozzi (1992) also suggested that the attitude–intention link can be governed by certain coping responses directed at the emotional significance of evaluative appraisals.

In this sense, the current study proposes that emotional states are another factor that can moderate consumers' attitudes toward ecological behavior. Thus, pro-environmental behavior may be guided in part by current emotional states. By referring to extant theory and applying it to emotions that are internally experienced, the following research question is formulated:

(4) How does consumers' current emotional state influence the relationship between their attitude and the intention to select an eco-friendly restaurant?

The emotional influences on judgment and choice are more complex than one would predict based on global valence alone (Han, Lerner, & Keltner, 2007). Han et al. (2007) suggested that incidental discrete emotions can produce nuanced effects consistent with core appraisal tendencies; such carryover effects are powerful eough to alter judgements and choices. Several researchers (Lerner & Keltner, 2000; Lerner, Small, & Loewenstein, 2004; Raghunathan & Pham, 1999) applied the Appraisal-Tendency Framework (ATF) as a lens for predicting emotion-specific influences in judgments. The ATF is a useful tool for studying the effects of discrete emotions on consumer decision making because it provides a flexible and specific framework for developing testable hypotheses and it systematically explores differences among emotions at more specific levels than mere valence (Han et al., 2007).

Regarding research question *(4)*, this study examines the moderating effects of two discrete positive emotions —namely, pride and compassion—which are selected for three reasons. First, previous ATF-based empirical research has focused on negative emotions (e.g., sadness, anxiety or disgust). Very little research has been conducted to examine positive emotions (Cavanaugh, Bettman, Luce, & Payne, 2007; Griskevicius, Shiota, & Nowlis, 2010; Strohminger, Lewis, & Meyer, 2011), although positive emotion influences decision making, promotes helping and generosity, and facilitates health-promoting behavior (Isen, 2001). For example, Garg (2006) found that people in positive moods prefer more nutritious foods than those in negative moods. Second, with reference to the ATF, Lerner and Tiedens (2006) suggested that research must compare emotions that are highly differentiated in their appraisal themes on judgment and choice: Researchers should contrast emotions on opposite poles of the dimension (e.g., self-

/other-oriented appraisal dimension of emotions). This study explores self-/other-oriented emotions and focus on two discrete emotions: pride and compassion. The previous research on emotion suggests that pride and compassion are strong examples of self- and other-focused emotions (Aaker & Williams, 1998; Markus & Kitayama, 1991). Third, pride and compassion are promising positive emotions for future consumer decision-making research within the ATF (Han et al., 2007). Both pride and compassion have been tested with regard to ecological behavior (Hopper & Nielsen, 1991; Mannetti, Pierro, & Livi, 2004; Verhoef, 2005). For example, consumers' ecological behavioral intention is influenced by two motives: status enhancement and altruism (Griskevicius, Tybur, & Van den Bergh, 2010; Jeong, 2010). Jeong (2010) suggested that restaurant consumers' desire for recognition by dining in a green restaurant motivates their ecological behavioral intention whereas consumers' genuine altruism is another motive to elicit their behavioral intention toward dining in a green restaurant. The main premise is that, when consumers' attitude is compatible with their emotional states (self- and other-focused emotion: pride and compassion), the attitude toward the intention to select an eco-friendly restaurant becomes stronger.

The goal of research question *(4)* is to build on existing theoretical approaches to the study of the emotional state that emphasizes appraisal tendencies rather than anticipated emotion. This study connects the ATF to attitude – intention mechanisms, which is a main relationship of the TPB. A detailed literature review and discussion regarding the ATF theory and its relevance to this study will be presented in the literature review section.

Purpose of the Study

The purpose of this study is to propose and test a model that explains the relationships of consumer attitude orientation and emotions, concerns, and beliefs related to intentions to select an eco-friendly restaurant. Moreover, the study attempts to develop an understanding of how these variables relate to each other and therefore further improve the understanding of what moderates eco-friendly buying behavior. Through the augmentation and extension of the TPB, this study proposes examining how the inclusion of anticipated emotion in the TPB improves its predictive power for consumer intentions. This study also aims to compare the predictive power of the base model of TPB and that of the proposed extended model of the TPB.

In addition, this study examines the potential moderators of these relationships. Specifically, in relation to attitude toward the behavior, this study predicts that positive discrete self-oriented (eco-focused) and other-oriented (other-focused) emotions will be associated with a stronger attitude toward intention.

This is achieved through the following specific objectives:

(1) to test the ability of TPB constructs (i.e., attitudes toward the behavior, subjective norm, and perceived behavioral control) to predict intention to select an eco-friendly restaurant for a meal

(2) to augment the TPB and examine whether the addition of anticipated emotion (i.e., anticipated regret) will enhance the predictive ability of the TPB

(3) to examine the moderating influence of consumers' emotional states (i.e., pride and compassion) between the consumers' attitude toward behavior and their intention to select an eco-friendly restaurant for a meal

Significance of the Study

The results and findings of this dissertation positively impact and contribute to theoretical and managerial aspects. This study contributes (1) to a better understanding of how to best predict consumers' ecological behavior by an improved understanding of consumers' eco-friendly restaurant choice; (2) to extending the TPB literature within the context of green restaurant; and (3) to further validating prior research regarding the impact of emotion role in the decision-making process.

Theoretical contributions

This study presents a model that broadens and deepens the TPB by introducing new constructs that have been shown to play important role in decision making. According to Perugini and Bagozzi (2001), two general approaches for theory contribution exist: theory broadening and theory deepening. The following description is adapted from Perugini and Bagozzi (2001):

> *Theory broadening is based on "the idea that more variance can be accounted for by specifying processes formally contained in error terms in tests of the theory whereas theory deepening is based on the idea that certain theoretical mechanisms can be better understood and their effects better qualified by introducing a new construct that mediates or moderates the effects of existing variables."* (pp. 79-80)

Regarding the process of theory broadening, this study contributes to the development of additional theoretical linkages, such as anticipated emotion as a parallel

predictor of the dependent variables, along with traditional predictors within the extended TPB. Limited research has examined the predictive power of the augmented TPB in the selection of eco-friendly restaurants context. As a second approach to the theoretical contribution, this study incorporates emotional state variables, pride, and compassion to explain how existing predictors influence intentions. Researchers have presented that the TPB constructs on their own have not been successful in explaining how intentions become energized (Bagozzi, 1992; Perugini & Bagozzi, 2001). Accordingly, this study extends the TPB by considering the influence of these emotional constructs on the formation of customers' choice intention of an eco-friendly restaurant and by enhancing the understanding of the theoretical mechanism within the model.

In summary, this study distinguishes two different ways in which emotions enter into consumers' decision making: anticipated emotion and current emotional states. The emotion-related developments in ecological behavior will shed new light on several topics in decision theory, such as how consumers deal with uncertain outcomes (e.g., delayed costs, benefits).

Practical contributions

The investigation of the underlying factors leading to consumers' intentions to select an eco-friendly restaurant will provide further insight into the consumers' decision-making processes, which is essential for the development of green marketing strategies in the restaurant context. Indeed, results of this study should assist restaurateurs in better understanding how to foster some specific emotions toward their restaurants. Determining which emotions contribute to attracting customers to eco-friendly restaurants can influence future strategic planning, particularly marketing. For example,

restaurant operators can make use of the results to design appropriate advertisements to attract consumers, which in turn should create consumer satisfaction and a positive behavioral intention to visit the eco-friendly restaurants and competitive advantage for eco-friendly restaurants.

Conceptual Framework

The framework of this dissertation entails two emotion components to capture a better understanding of consumers' eco-friendly restaurant choice. Specifically, anticipated regret serves as an independent predictor whereas emotional states serve as the moderator to be examined within this particular theoretical framework.

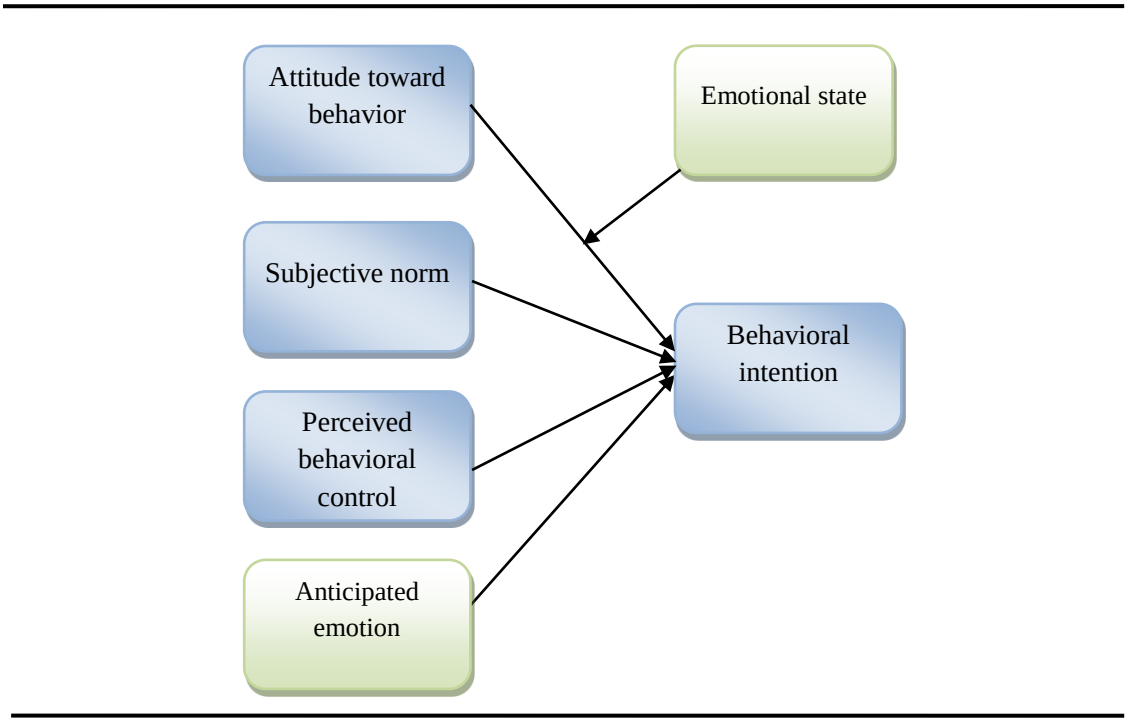


Figure 3. The Proposed Conceptual Model:
Proposed Extended TPB Model for an Eco-friendly Restaurant Choice Intention

The conceptual framework of this dissertation lays its foundation on the combination of both the TPB (Ajzen, 1991) and the theory of regret regulation (Zeelenberg & Pieters, 2006; Zeelenberg & Pieters, 2007) to explain consumers' eco-friendly restaurant selection; furthermore, the ATF (Lerner & Keltner, 2000, 2001) was introduced to shed light into how consumers' current emotional states play a moderating role between consumers' attitude and ecological behavioral intention.

Definition of Terms

Affect: "Valenced feeling states" with emotions and moods (Cohen & Areni, 1991). An umbrella for a set of more specific mental feeling processes including emotions and moods and a generic label to refer to both emotions and moods (Bagozzi et al., 1999; Forgas, 1995).

Anticipated emotion: Predictions about how one will feel if certain decision outcomes occur (Loewenstein & Lerner, 2003); the prospect of feeling positive or negative emotions after performing or not performing a behavior (Rivis et al., 2009).

Anticipated regret: An emotional reaction to bad decision outcomes and a powerful factor in motivating and giving direction to behavior (Zeelenberg, 1999; Zeelenberg & Pieters, 2007), in which regret is used to describe the sense of sorrow, disappointment, or distress over something done or not done (Landman, 1987).

Appraisal tendency: Each emotion activates a predisposition to appraise future events in line with the central appraisal dimensions that triggered the emotion (Lerner & Keltner, 2000, 2001).

Attitude toward the behavior: The person's overall evaluation of the behavior (Ajzen, 1991).

Behavioral intention: An individual's readiness/willingness to engage in a particular behavior (Ajzen, 1985).

Eco-friendly restaurant: Restaurant establishments that offer organic, locally sourced, and/or sustainable food menu items that are beneficial to the environment and responsive to ecological concerns while implementing ecologically sound practices such as saving water and energy as well as reducing solid wastes.

Emotion: Mental states of readiness that arise from appraisals of events or one's own thoughts (Bagozzi et al., 1999). Emotions have come to be regarded as *discrete* (Barsade & Gibson, 2007).

Emotional state: Emotion experienced at the time of making a decision (Loewenstein & Lerner, 2003).

Perceived behavioral control: Perceptions of the degree to which performance is under the actor's control (Ajzen, 1991).

Subjective norms: Beliefs about whether significant others think an individual should engage in the behavior (Ajzen, 1991).

Valence: The extent that an experience is positive or negative, good or bad, or pleasant or unpleasant (Zeelenberg, Nelissen, Breugelmans, & Pieters, 2008).

To better understand the terms *affect*, *attitude*, *emotion*, and *mood*, Figure 4 clarifies the hierarchical relationship among them and specifically shows the difference between anticipated emotion and emotional state in detail for the purposes of this dissertation.

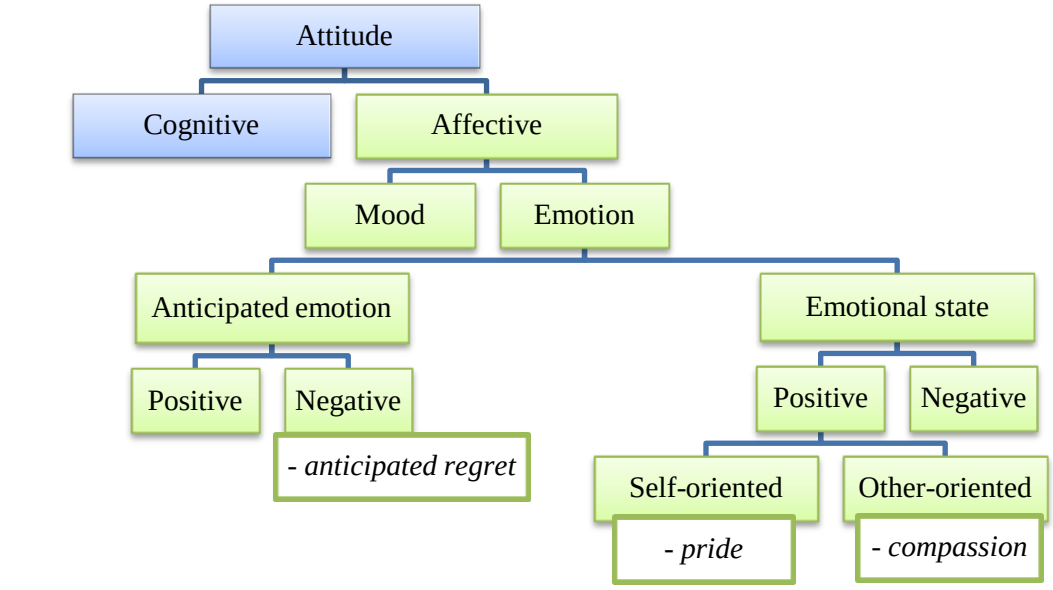


Figure 4. The Hierarchical Presentation of Emotion:
Anticipated Emotion and Emotional State

CHAPTER II

REVIEW OF LITERATURE

This chapter consists of a review of the literature on the conceptualization of the relationship of various constructs that influence the behavioral intention of individuals in the fields of hospitality, consumer behavior, and psychology. The importance of context and ecological behavior are introduced first. Next, the TPB and studies that have adopted this theory are reviewed, followed by a review of literature pertaining to anticipated emotion, which is considered to be an antecedent to the TPB model. In addition, emotional state is separately explained in detail with the ATF.

Overview of Context and Ecological Behavior

Eco-friendly restaurants

Foster, Sampson, and Dunn (2000) stated that the hospitality industry is facing pressure to become more environmentally friendly because of consumer demand, increasing environmental regulations, managerial concern with ethics, customer satisfaction, maintenance issues, and the need for aesthetics. D'Souza, Taghian, Lamb, and Peretiatkos (2006) suggested that the drivers toward environmental marketing are to build a strong competitive advantage for the product; to develop and project a positive and ethical corporate image; to gain and benefit from the support of the employees; and

to meet customers' expectations, improve market share, and achieve longer-term profit potentials.

Currently, several restaurants have incorporated eco-friendly business practices into their products and services, as interest for the environment in food service appears to be a relatively new phenomenon (Hu et al., 2010). For example, Yum Brands is switching its fryer oil into biodiesel fuel and reducing energy consumption (Elan, 2008). Dunkin' Donuts has participated in green certificate programs and unveiled its first Leadership in Energy and Environmental Design (LEED) certified restaurant in Florida in 2008 (Environmental Leader, 2008). According to Environmental Leader's (2008) report, this restaurant features energy-efficient insulated concrete foam walls to reduce air conditioning usage by approximately 40 percent, energy-efficient lighting (including motion sensors) for restrooms and offices, and water-efficient plumbing fixtures (including low-flush toilets and well water rather than potable water for all irrigation). One Chipotle Mexican Grill restaurant has even incorporated a wind turbine, generating more than 7 percent of its power needs (Hu et al., 2010).

On the other hand, compared to conventional food products, consumer attitudes toward organic products are more favorable because consumers perceive organic products to be better with respect to taste, quality, safety, and impact on health and on the environment (Vermeir & Verbeke, 2008). Local food products also receive a positive perception because consumers believe them to be fresh and good for the local economy and community (Vermeir & Verbeke, 2008). Table 1 summarizes some examples of eco-friendly practices that restaurants can implement.

Table 1. Eco-friendly Restaurant Practices

Recycling glass, paper, cardboard, plastic, aluminum, cooking oil
Using biodegradable, recyclable utensils, cups, and packaging
Composting food and garden waste
Reusing leftover soaps/toiletries for staff use or use in public washrooms
Using natural cleaning alternatives (e.g., lemon juice, vinegar, salt)
Using cage-free eggs
Use local and regional farms for produce, cheese, wines
Use organic items in catering and concessions operations
Fitting energy-saving devices (e.g., dimmer/time switches, energy-efficient light bulbs)
Monitoring consumption
Improving insulation
Installing water-saving devices (e.g., flow regulators, waterless urinals)
Using economy wash cycle
Applying environmental policy; communicating policy to consumers
Purchasing ethical and environmentally friendly products
Offering environmental training
Participating in environmental bodies/charities

Source: Tzschentke, Kirk, & Lynch, (2008)

The Green Restaurant Association, a non-profit organization in the U.S., provides environmental guidelines covering a wide spectrum of different green practices (Tan & Yeap, 2012). Hu et al. (2010) summarized the topics listed by the Green Restaurant Association and explained the topics in detail. Based on their suggested topics (Hu et al., 2010), the nine environmental guidelines are:

1. **Energy efficiency and conservation**: Improve the energy efficiency of lighting, refrigeration, air-conditioning, and gas appliances.

2. **Water efficiency and conservation**: Improve the water efficiency of toilets, faucets, laundry, and sprinkler systems.
3. **Recycling and composting**: Transition to recycled products and non-tree-fiber paper products: napkins, paper towels, toilet paper, office paper, take-out containers, coffee jackets, plates, and bowls.
4. **Sustainable food**: Support the long-term maintenance of ecosystems and agriculture for future generations. Organic agriculture prohibits the use of toxic synthetic pesticides and fertilizers, irradiation, sewage sludge, and genetic engineering. Locally grown foods reduce the amount of pollution associated with transportation primarily by fossil fuels.
5. **Pollution prevention**: Achieved through reduction at source, reuse, or improved operational practices.
6. **Nontoxic cleaning and chemical products**: Replace hazardous chemical products with biodegradable and nontoxic alternatives.
7. **Renewable power**: Electricity and power are available from renewable resources such as wind, solar, geothermal, small hydro, and biomass.
8. **Green building and construction**: Green design and construction practices significantly reduce or eliminate the negative impact of buildings on the environment, occupants, and the local community.
9. **Employee education**: There is a definite need to train all employees, managers, and owners about green practices.

Ecological behavior and product-related factors in the restaurant industry

According to McCarty and Shrum (2001), ecological purchase behaviors differ from general purchase-related consumer behaviors. McCarty and Shrum (2001) further stated that engaging in a general purchase behavior is driven by an assessment of its benefits and costs that are relevant solely to the individual consumer performing the behavior. In contrast, environmentally conscious behaviors span beyond immediate benefits of the consumer. Instead, this behavior considers the future-oriented outcomes (e.g., cleaner environment) that benefit not only the individual, but also society as a whole (Vlek & Keren, 1992). Empirical studies have suggested that at least some people do sacrifice their own short-term benefits and voluntarily perform pro-environmental behaviors such as using unbleached paper, using energy-saving light bulbs, and turning off faucet while brushing their teeth (Harland et al., 1999) as well as consuming organically produced food (Sparks & Shepherd, 1992). Extant empirical work has focused primarily on the identification of consumer motivations underlying pro-environmental behaviors (Bagozzi & Dabholkar, 1994; Lee & Holden, 1999), the elaboration of the relationship between cognitive or motivational factors and environmentally conscious behavior (Dietz, Stern, & Guagnano, 1998; McCarty & Shrum, 1994), the perceived effectiveness of the behavior (Ellen, Wiener, & Cobb-Walgren, 1991), and knowledge of the behavior (Hines, Hungerford, & Tomera, 1987). Prior research has identified several key factors motivating environmentally conscious behavior, including individuals' concerns about the environment, their beliefs about their ability to ease the problem (Ellen et al., 1991), and an overall orientation toward the welfare of others (McCarty & Shrum, 2001; Schwartz, 1977; Stern, Dietz, & Kalof,

1993). Despite previous research efforts, the ability to predict consumer's acceptance of eco-friendly product accurately will evolve slowly.

Ecological purchasing behavior refers to the consumption of products that are beneficial to the environment, recyclable and conservable, or sensitive and responsive to ecological concerns (Mostafa, 2007). According to Mostafa (2007), some examples of these products include energy-efficient light bulbs, detergents containing ingredients that are biodegradable, and reusable packaging. Ogle, Hyllegard, and Dunbar (2004) reported that ecological consumers' concerns include beliefs about the environmental impact of the materials and processes used to manufacture products and their packaging (e.g., the use of organic or recycled materials, the use of natural resources such as energy and water, and the generation of waste and pollution).

However, thus far, no common viewpoint has emerged as to how an eco-friendly restaurant should be conceptualized in terms of consumers' perspective. Although the subject of eco-friendly restaurants has attracted great interest in the hospitality literature (Dutta, Umashankar, Choi, & Parsa, 2008; Vieregge et al., 2007), a general theoretical framework that orders and integrates the most relevant contributions has still not been formulated (Jang, Kim, & Bonn, 2011).

Food attributes influencing consumer choices have been studied among various green practices that apply into the restaurant industry. Vieregge et al. (2007) found that more than 67% consumers of McDonald's restaurant prefer local products. In addition, more than 70% consumers would frequent the restaurant more often if they had been aware of local product use. Attitudes toward product origin, product extrinsic cues, product convenience, and health influence consumers' willingness to pay a premium to

buy organic products (Botonaki et al., 2006). Health, taste, and environmental benefits are important attributes in the selection of organic foods (Lockie et al., 2002).

Table 2. Quality Attributes of Food Products

1. Food Safety Attributes	
	Food-borne pathogens
	Heavy metals
	Pesticide residues
	Food additives
	Naturally occurring toxins
	Veterinary residues
2. Nutrition Attributes	
	Fat
	Calories
	Fiber
	Sodium
	Vitamins
	Minerals
3. Value Attributes	
	Purity
	Compositional integrity
	Size
	Appearance
	Taste
	Convenience of preparation
4. Package Attributes	
	Package materials
	Labeling
	Other information provided
5. Process Attributes	
	Animal welfare
	Biotechnology
	Environmental impact
	Pesticide use
	Worker safety

Source: Caswell (1998)

Bourn and Prescott (2002) found that nutritive factors, sensory factors and food safety are important attributes influencing consumer organic food choice while Yiridoe, Bonti-Ankomah, and Martin (2005) insisted that taste, freshness, and shelf life play a key role in consumers' purchase decisions. D'Souza et al. (2006) presented that the

pakcaging of consumer products presents a specific and visible element of environmental concern for the consumer. Caswell (1998) identified five broad groups of food quality attributes—namely, safety, nutrition, value, package, and production process (see Table 2).

The disposal of the products' packaging, the material used, and the cost associated with excessive packaging material offer a mix of reminders that businesses sometimes use packaging beyond its useful function to the detriment of environmental safety and care for the non-renewable materials. Recyclable material can to some extent justify the use and a claim of lower usage overall and the minimum damage to the environment. It is anticipated that environmental labels potentially provoke and modify buying behavior, as consumers are willing to seek environmental information about products and read product labels to make better-informed decisions (Carlson, Grove, & Kangun, 1993).

Based on a thorough literature review and the results of initial survey and interviews, this study modifies Mostafa's green product definition to define the eco-friendly restaurants as restaurant establishments that offer organic, locally sourced, and/or sustainable food menu items that are beneficial to the environment and responsive to ecological concerns while implementing ecologically sound practices such as saving water and energy as well as reducing solid wastes.

Theoretical Foundation

Theory of Planned Behavior

The TPB is a cognitive model of human behavior in which the central focus is the prediction and understanding of clearly defined behaviors (Ajzen, 1985). Ajzen stated

that the principal predictor of behavior is intention. People tend to act in accordance with their intention to engage in a behavior (Cheng, Lam, & Hsu, 2005), where intention refers to an individual's readiness/willingness to engage in a particular behavior (Ajzen, 1985). In this study, intention refers to a customer's readiness and willingness to select an eco-friendly restaurant.

Intentions are determined by three variables: attitude toward the behavior, subjective norms, and perceive behavioral control. Attitude toward the behavior refers to the person's overall evaluation of the behavior. For example, a consumer may weigh the costs and benefits gained from an act (Cheng, Lam, & Hsu, 2006). These authors explained that if an individual possesses a positive attitude toward a behavior, he or she may be more likely to engage in such a behavior. This attitude is based on salient behavioral beliefs —namely, beliefs about the consequences of engaging in a certain behavior (Ajzen & Fishbein, 1980). The strength of each behavioral belief is multiplied by the corresponding evaluation of the outcome, and the products are aggregated to estimate attitude (Ajzen, 1991). For example, with regard to belief constructs for green hotel choice, Han and Kim (2010) elicited a set of belief items (e.g., "Staying at this green hotel when traveling to the same location next time would enable me to be more socially responsible") from green hotel customers, hospitality academics, and hotel industry professionals. To estimate attitude toward the behavior, the behavioral beliefs were then multiplied by the measures of outcome evaluations (e.g., "Being more socially responsible is" 1 = very unimportant, 7 = very important).

Subjective norms are beliefs about whether significant others think the individual should engage in the behavior (Ajzen, 1991). In other words, the subjective norms are

believed to be a function of normative beliefs and motivation to comply (Han & Kim, 2010). For example, the perceived pressure and the expectation of a person's significant referents, such as a spouse or other family members, might exert substantial influence on the choice of a particular behavior (Ajzen & Fishbein, 1980). If selecting an eco-friendly restauant for a meal is seen as righteous behavior by the one's important others and his or her motivation to comply with others is high, he or she will have a stronger intention to select an eco-friendly restaurant.

Perceived behavioral control refers to perceptions of the degree to which performance is under the actor's control (Ajzen, 1991). Perceived behavioral control influences intention and behavior because the effort expended to successfully enact an intention is likely to increase with greater perceived behavioral control and because perceived behavioral control may reflect actual control (Conner & Abraham, 2001). Meanwhile, if one perceives little control when performing a particular behavior because of the lack of requisite resource, his or her intentions to do the behavior may be lower (Cheng et al., 2006).

The TPB has been applied successfully in a wide variety of behavioral domains (Ajzen, 1991) and has shown a strong predictive utility for a wide range of behaviors, including green hotel choice (Han et al., 2010), sustainable food consumption (Vermeir & Verbeke, 2008), and healthy eating (Conner, Norman, & Bell, 2002). In a meta-analysis conducted by Armitage and Conner (2001), attitude, subjective norm, and perceived behavioral control (PBC) accounted for a frequency weighted average of 39% of the variance in intention across 154 applications. Overall, the TPB constructs account for an average of between 40% (Conner & Armitage, 1998; Godin & Kok, 1996) and 50%

(Ajzen, 1991) of the variance in intention across applications. One meta-analytic study examined 142 empirical tests of the TPB and concluded that the TPB provides good predictive power, averaging 40% of the variance in intention (Armitage & Conner, 2001). The accumulated evidence reveals that this theory is useful in explaining most kinds of social behavior. Meanwhile, even 50% of the variance explained still leaves another 50% that has not been explained (Sheeran & Orbell, 1999). Therefore, additional variables should be considered to improve the TPB by adding predictors to it (Perugini & Bagozzi, 2001).

Augmentation of the TPB

Ajzen noted that the TPB is open to the inclusion of further variables in a certain context if they are found to enhance its predictive utility in general (Ajzen, 1991). In other words, the theory can be broadened and deepened through such a process. Ajzen further stated,

> *The theory of planned behavior is, in principle, open to the inclusion of additional predictors if it can be shown that they capture a significant proportion of the variance in intention or behavior after the theory's current variables have been taken into account.* (Ajzen, 1991, p. 199)

Numerous researchers have successfully extended or modified the TPB by including constructs that are believed to be critical in a specific context and altering the specific paths in the theory (Conner & Abraham, 2001; Conner et al., 2002; Han & Kim, 2010; Kim & Han, 2010; Lee & Back, 2007; Oh & Hsu, 2001). Their efforts contribute to generating a better understanding of the theoretical mechanism of the TPB and

enhancing its predictive power for intention and behavior in various contexts. For example, Oh and Hsu (2001) found that frequency of past behavior is critical to the decision-making process and a powerful predictor of gambling decisions. Kim and Han (2010) revealed that environmentally conscious behaviors positively impact intention to pay conventional hotel prices; indeed, their extended model has better predicted hotel customers' intention than the original TPB.

Thus, the TPB has been directly applied to the hospitality context. Ajzen and Driver (1992) used the TPB and its variations, together with other variables of mood and involvement, to predict individual participation in a variety of leisure activities. They found that attitude toward leisure activities, subjective norms, and perceived behavioral control predicted leisure intention. Ogle, Hyllegard, and Dunbar (2004) investigated consumer patronage at a retail outlet chain by using an extended version of the Theory Reasoned Action model that included variables other than attitude and subjective norm and found that sustainable store design, historic preservation, and urban renewal efforts influence future intention to patronize the store. Within the hotel sector, one of the major components of the hospitality industry, the TPB has been successfully applied to a wide range of ecological behaviors, including intention to stay at a green hotel (Han et al., 2010); revisit intention to green hotel (Han & Kim, 2010); and intention to pay conventional hotel prices at a green hotel (Kim & Han, 2010). These findings have provided evidence that the extended TPB models improved the explanation of the process of green hotel customers' decision making. In sum, the findings of the previous studies support the applicability of the TPB model and its extensions and variations to hospitality-related studies.

Derivation of the extended TPB model

This study makes a contribution toward understanding the potential noncognitive determination by considering consumers' emotional responses in the context of Ajzen's TPB. In this regards, this study attempts to extend the TPB model by incorporating such constructs as anticipated emotion and emotional state into the model to improve its ability to predict intention and understanding of eco-friendly restaurant consumers' selection.

Within the domain of environmentally relevant behavior, affect and emotions have rarely been examined together or directly in addition to the TPB. Furthermore, while the augmented TPB predicts intention to perform a behavior, the current study investigates the moderating effects of the specific emotions (i.e., pride and compassion). This section of the literature review specifically discusses studies related to the variable of anticipated regret in terms of their operationalization and their influence on behavioral intention. Before the discussion, the background of attitude and affect is introduced. As this study proposes moderating effects of the consumers' pride and compassion on their intention, literature on pride and compassion is also discussed.

The Nature of Affect and Attitude

Before considering anticipated emotion and emotional states, the terms *affect*, *attitude*, *emotion*, and *mood* must be defined in the context of this dissertation. This section begins by discussing these concepts. Next, the two types of emotion—anticipated emotion and emotional states—are reviewed.

Affect and Attitude

Breckler and Wiggins (1989) stated that attitudes have two distinct components: affective and cognitive (or evaluative) dimensions, where affect refers to emotional responses and feelings engendered by an attitude object and evaluation refers to thoughts, beliefs, and judgments about an attitude object. In their experimental study, the discriminant validity of affect and cognitive in the structure of attitudes was supported (Breckler & Wiggins, 1989). Edwards (1990) affirmed that the distinction between affective and cognitive components of attitude is apparent. Cohen and Areni (1991) suggested that the term *affect* refers to "valenced feeling states," with emotions and moods as specific examples, whereas *attitude* refers to global evaluative judgments rather than emotional states. Consistent with most recent scholarly discussions, Cohen et al. (2008) viewed individuals' explicit or implicit liking for some object, person, or position as an evaluative judgment rather than an affect and separated affect from either liking or purely descriptive cognition. Thus, the attitude and affect dimensions are distinct and should no longer be used interchangeably (Breckler & Wiggins, 1989; Richard et al., 1996; Zajonc, 1980). For the present purposes, this study distinguished the terms *affect* and *attitude*.

Yet the terms *affect*, *emotions*, *moods*, and *attitudes* have frequently been used inconsistently in the literature (Bagozzi et al., 1999). According to Bagozzi et al. (1999) , the term *affect* is considered to be an umbrella for a set of more specific mental feeling processes, including emotions, moods, and attitudes, rather than a particular psychological process. Cohen et al. (2008) effectively explained the differences between moods and emotions: People are often aware of feeling good or bad, optimistic or

pessimistic, up or down, relaxed or restless, or alert or drowsy whereas mood occurs when an individual experiences a vague sense of feeling good or bad without necessarily knowing quite why (Cohen et al., 2008). Thus, emotions are much more differentiated and hence provide more attitude and behavior specific information (Cohen et al., 2008). However, some researchers have treated emotion and mood interchangeably, and specific references to emotion in the marketing literature are less frequent than references to affect or mood (Sherman, Mathur, & Belk, 1997). In this study, affect is used as a generic label to refer to both emotions and moods. Table 3 provides the definition of terms used in research on affect.

Table 3. Affect, Emotion, and Mood

	Formal definition	Colloquial terms
Affect	Umbrella term encompassing a broad range of feelings that individuals experience, including feeling states, such as moods and discrete emotions, and traits, such as trait positive and negative affectivity	"I feel…" "She seems to be feeling…" "He is usually unemotional"
Emotion	Emotions are focused on a specific target or cause—generally realized by the perceiver of the emotion; relatively intense and very short lived. After initial intensity, can sometimes transform into a mood. Usually have a definite cause and clear cognitive content	Love, anger, hate, fear, jealousy, happiness, sadness, pride, compassion, etc.
Mood	Mood generally takes the form of a global positive (pleasant) or negative (unpleasant) feeling; tends to be diffuse—not focused on a specific cause—and often not realized by the perceiver of the mood; medium duration (from a few moments to as long as a few weeks or more). Low intensity and relatively enduring affective states without a salient antecedent cause and therefore little cognitive content	Feeling good, bad, negative, positive, cheerful, down, pleasant, irritable, etc.

Source: Barsade and Gibson (2007) and Forgas (1995)

Two types of affective influences: Anticipated emotion and emotional state

Many theoretical accounts have been proposed to explain the emotional influence on behavioral intention and behavior (Andrade, 2005). Andrade (2005) explained that in affect regulation theory, people should separately assess their current affective state (i.e., emotional state) and predict the affective consequences likely to be produced by the subsequent behavioral activity. In addition, Loewenstein and Lerner (2003) distinguished two different affective influences on decision making: expected emotions (i.e., anticipated emotion) and immediate emotions (i.e., emotional state). The current study incorporates two types of affective influences within the same theoretical umbrella. For the purpose of this study, the terms *anticipated emotion* and *emotional state* are used. Anticipated emotion refers to the prospect of feeling positive or negative emotions after performing or not performing a behavior whereas emotional state is the state of a persons' emotions (Beal et al., 2005).

Table 4. Anticipated Emotion and Emotional State

	Definitions	**Time when emotion occurs**
Anticipated emotion	Predictions about how one will feel if certain decision outcomes occur	Future: when decision outcomes are experienced
Emotional state	Emotion experienced at the time of making a decision	Present: at time of decision

Source: Loewenstein and Lerner (2003)

The remainder of the chapter is organized as follows. The following section reviews literature on anticipated emotion and anticipated regret in the TPB. Next, a review of the effects of emotional state on decision-making is discussed.

Anticipated Emotion

Rivis et al. (2009) suggested that anticipated emotion is the construct for understanding the emotional aspect and insisted that it could make an independent contribution to the prediction of intentions. These authors (Rivis et al., 2009) also found that anticipated emotion increased the variance explained in intentions by 5%, after controlling for TPB variables. Other researchers have noted that anticipated emotion (called anticipated affective reaction of a particular behavior) —namely, feelings about having performed the target behavior—have been shown to predict behavioral intentions beyond the TPB components in a number of studies and independent from general attitudes (evaluations) toward the behavior (Moan & Rise, 2005; Perugini & Bagozzi, 2001; Richard, de Vries, & van der Pligt, 1998). For example, Richard et al. (1996) found that "anticipated affective reactions were more negative than attitudes toward the behavior for behaviors with negatively valued consequences and more positive for behaviors with positively valued consequences" (p. 111) in a number of behaviors in the TPB context.

Generally, anticipated emotion can be distinguished as positive and negative anticipated emotion that predicts behavior (Perugini & Bagozzi, 2001). Previous research addressing anticipated emotion in the context of the TPB has focused primarily on negative anticipated emotion, such as anticipated regret (Moan & Rise, 2005), because

people place greater weight on avoiding losses, risks, and negative consequences than approaching gains and positive consequences (Kahneman & Tversky, 1984). In addition, the findings of a meta-analysis of anticipated emotion suggested that measures of specific anticipated feelings of regret were more strongly related to intentions than general anticipated emotion was (Rivis et al., 2009). In line with previous studies, this research examines anticipated regret in the context of intention to engage in a behavior that does not appear to have been addressed in previous research.

Anticipated regret

Social psychologists and clinical psychologists have borrowed the concept of anticipated regret from economics to explain its role on decision making (Baron, 1992). In general, the term *regret* is used to describe the sense of sorrow, disappointment, or distress over something done or not done (Landman, 1987). According to Simonson (1992), "such sorrow may result from both the comparison of the actual outcome with the alternative outcome and from the feeling of responsibility or self-blame for the disappointing outcome" (p. 105).

Consumers not only evaluate the choices they make but also the choices they did not make (Bui, 2009). From a regret-theory perspective, people experience regret depending on whether or not the outcome of the chosen option is better than the outcome of the unchosen option (Sheeran & Orbell, 1999). In other words, people feel regret when the consequences of the rejected option would have been better and rejoice when the consequence of the rejected option would have been worse (Zeelenberg, 1999). According to Zeelenberg (1999), "regret theory assumes that the tendencies to avoid negative emotions like regret and to strive for positive emotions like rejoicing are

important determinants of human decision making" (p. 95). On the other hand, the concept of coping is relevant to consumer behavior, particularly regret (Aron, 1999). Coping is the individual's constantly changing cognitive and behavioral efforts to manage the environment (Folkman & Lazarus, 1988).

Therefore, researchers have assumed that regret is anticipated and considered when making decisions (Sheeran & Orbell, 1999). People will avoid taking risks since they anticipate feeling regret if the worst outcome occurs (Baron, 1992). Zeelenberg (1999) demonstrated a good example of the often-used choice between a gamble and a sure thing:

> *If you opt for the sure thing you normally do not learn whether the gamble would have been better. If you opt for the gamble you will always learn the outcome of the gamble and the outcome of the sure thing, thus you will always know whether the sure thing would have been better. Thus, the sure thing protects you from regret, whereas the gamble carries some risk of regret. If you in this case anticipate regret, you will opt for the sure thing, revealing risk-aversion.* (p. 97)

Empirically, the impact of anticipated regret has received support. In previous research, Richard et al. (1998) found that anticipated regret is a significant predictor of behavioral expectations in the context of sexual and contraceptive behavior. Kaiser (2006) also found that anticipated feelings of regret made significant and unique contributions to the overall explanatory power of people's intention to act in a conservational manner. Similarly, Parker, Manstead, and Stradling (1995) found that the addition of anticipated regret substantially improved prediction of intentions to commit

three different driving violation cases that are antisocially or socially controversial. In a factor analysis study (Sheeran & Orbell, 1999), anticipated regret was distinct from the other components of the TPB. Abraham and Sheeran (2003) presented evidence that anticipated regret has a direct influence on prospective behavior, such as exercising. Meanwhile, a recent meta-analysis provided support for the unique contribution of anticipated regret even when accounting for attitude (Sandberg & Conner, 2008).

In sum, both conceptual and empirical grounds exist for supposing that anticipated regret could qualify as an important additional predictor in the TPB. Building on this notion, it is proposed that one can lead consumers to act more conservatively by asking them to anticipate how they would feel if their decisions turned out to be wrong. This proposition is examined in the context of a consumer's choice between an eco-friendly restaurant and a regular restaurant.

Theory of regret regulation

There is plenty of room for regret within a number of decisions (Zeelenberg & Pieters, 2007). Regret theory emerged from economic research to help explain irrational decision making; it was extended to the theory of regret regulation (Bui, 2009). The theory of regret regulation lays its foundation on the premise that, because consumers are regret averse, they try to regulate their regrets (Zeelenberg & Pieters, 2007). That is, consumers have a natural motivation to undo unwanted consequences of the future so they tend to avoid future regret by choosing options that best give them the intended results. Bui (2009) insisted that the theory of regret regulation helps better explain the induction of anticipated regret via the provision of menu item nutrition information

before the consumption of a consumption episode can influence consumers to make more healthful consumption decisions. The propositions in Table 5 reflect the now abundant knowledge of the antecedents of regret.

Table 5. Propositions of Regret Regulation Theory

Proposition 1. Regret is an aversive, cognitive emotion that people are motivated to regulate in order to maximize outcomes in the short term and learn to maximize them in the long run.
Proposition 2. Regret is a comparison-based emotion of self-blame, experienced when people realize or imagine that their present situation would have been better had they decided differently in the past.
Proposition 3. Regret is distinct from related other specific emotions such as anger, disappointment, envy, guilt, sadness, and shame and from general negative affect based on its appraisals, experiential content, and behavioral consequences.
Proposition 4. Individual differences in the tendency to experience regret are reliably related to the tendency to maximize and compare one's outcomes.
Proposition 5. Regret can be experienced about past (i.e., retrospective regret) and future (i.e., anticipated or prospective regret) decisions.
Proposition 6. Anticipated regret is experienced when decisions are difficult and important and when the decision maker expects to learn the outcomes of both the chosen and rejected options quickly.
Proposition 7. Regret can stem from decisions to act and from decisions not to act: The more justifiable the decision, the less regret.
Proposition 8. Regret can be experienced about decision process (i.e., process regret) and decision outcomes (i.e., outcome regret).
Proposition 9. Regret aversion is distinct from risk aversion, and they jointly and independently influence behavioral decisions.
Proposition 10. Regret regulation strategies are decision-, alternative-, or feeling-focused and implemented based on their accessibility and their instrumentality to the current overarching goal.

Source: Zeelenberg and Pieters (2007)

Emotional State

Loewenstein and Lerner (2003) insisted that conventional decision-making theories include only anticipated emotions and neglect to take into account the important influence of the emotional state. Andrade (2005) suggested that people's current emotional states will weaken or enhance evaluative judgment and actions in a similar way. For example, negative current emotion leads to a less favorable evaluation of the environment so it will decrease consumption, whereas a positive emotional state leads to a more favorable evaluation of the environment and will increase consumption (Andrade, 2005). According to Isen and Simmonds (1978), people tend to move toward the goal of a more positive emotional state when they feel bad, whereas people tend to protect a current emotional state when they feel good. In another example, Sherman, Mathur, and Belk (1997) revealed that a consumer's emotional state such as pleasure is more closely associated with store liking and money spent in the store.

Cohen et al. (2008) dealt with incidental affect to explain the influence of emotional state on consumer behavior. According to Cohen et al. (2008), incidental affect refers to affective experiences whose source is clearly unconnected to the object to be evaluated; emotional state, a form of incidental affect, has assimilative influences on decisions and behavior. For example, Isen, Nygren, and Ashby (1988) found that persons in whom positive emotion had been induced showed a more negative subjective utility for losses than did controls. In previous research, Schwarz (1990), Schwarz and Clore (1983), and Bower (1981) suggested the various aspects of affect to include affect as information account and affect-priming mechanisms. In affect as information account, people are often inclined to inspect how they feel about the objects in the course of

evaluating objects because they perceive these feelings to contain valuable judgmental information (Schwarz, 1990; Schwarz & Clore, 1983). Pham, Cohen, Pracejus, and Hughes (2001) provided empirical results to support the conclusion that emotional information is likely to play a prominent role in the assessment of meaningful perceptual inputs. Their results revealed that the conscious monitoring of feelings provides judgmental responses that are faster, more stable and consistent across individuals, and more predictive of the valence of people's thoughts (Pham et al., 2001). Emotional states have stronger affect-congruent influences on evaluations when other bases of evaluation are ambiguous or when people lack expertise with the target domain (Cohen et al., 2008). Meanwhile, in affect-priming mechanisms, affect can indirectly inform social judgments by facilitating access to related cognitive categories (Bower, 1981). Forgas (1995) explained that emotional states can prime the encoding, retrieval, and selective use of information in the constructive processing. Meanwhile, in their experimental study, Fedorikhin and Cole (2004) found that participants in the mood-after condition could simply retrieve their previously formed initial state, suggesting that evaluations of emotions are more likely to operate through emotion priming.

With the most basic mechanism, affect as information, Andrade and Cohen (2007) insisted that emotional states are sometimes attributed to affect regulation. Cohen et al. (2008) explained that affect regulation links people's spontaneous attempt to intensify, attenuate, or maintain a given affective state in the typical short term. According to Andrade (2005), affect regulation model depends on a hedonic goal pursuit assumption. People instinctively try to achieve the desired affective state when they feel bad, whereas people attempt to protect it when the state has been attained (Andrade, 2005).

Recent studies have demonstrated the importance of studying incidental emotional states beyond their valence (Cohen et al., 2008; Han et al., 2007; Lerner & Keltner, 2000; Lerner et al., 2004; Loewenstein & Lerner, 2003; Raghunathan & Pham, 1999), where valence refers to the extent that an experience is positive or negative, good or bad, or pleasant or unpleasant (Zeelenberg et al., 2008). Loewenstein and Lerner (2003) insisted that the appraisal dimension of certainty has more explanatory power than the valence dimension. Griskevicius, Shiota, et al. (2010) suggested that different emotions of the same valence may influence judgment and decision making in different ways. Although valence has shown the predicting power of emotion, it is only one dimension of emotion (Han et al., 2007). This shared variance is driven by primary appraisals whereas discrete emotions are crystallized at the secondary appraisal stage, which is unique to every emotion (Gooty et al., 2009).

Adopting a pragmatic approach to the study of specific emotions in decision making (termed the feeling-is-for-doing), a number of broad propositions are summarized in Table 6 (Zeelenberg & Pieters, 2006). Zeelenberg et al. (2008) clarified that the differential impact of specific emotions occurs through the significant relationship between emotion and motivation in decision-making. According to Griskevicius, Shiota, et al. (2010), "specific emotions can be defined in terms of a particular pattern across a series of appraisal dimensions, each reflecting some interpretation of the emotion eliciting event" (p. 239).

Table 6. Propositions Summarizing the Pragmatic "Feeling-is-for-Doing" Perspective

1. The emotional system is the primary motivational system for goal-directed behavior
2. Each specific emotion serves distinct motivational functions in goal striving
3. These motivational functions cannot be reduced to the overall valence of the specific emotions
4. The distinct motivational functions are rooted in the experiential qualities of the specific emotions
5. Emotions can be either endogenous (an integral part) or exogenous (environmentally invoked) to the goal-striving process, with their effect on behavior being contingent on their perceived relevance to the current goal.

Source: Zeelenberg and Pieters (2006)

To explore differences among emotional states at a more specific level than global valence alone, the ATF (Lerner & Keltner, 2000, 2001) was employed.

Appraisal-Tendency Framework

Lerner and Keltner (2000) proposed the ATF, which links emotion-specific appraisal processes to a broad array of judgment and choice outcomes. The ATF has two assumptions: (1) emotions trigger changes in cognition, physiology, and action and often persist beyond the eliciting situation and (2) emotions are associated with specific appraisals that reflect the core meaning of the event that elicits each emotion (Lerner & Keltner, 2001). Lerner and Keltner (2001) noted that emotions of the same valence differ on multiple appraisal dimension. Based on these two assumptions, Lerner and Keltner (2001) posited that each emotion activates a predisposition to appraise future events in line with the central appraisal dimensions that triggered the emotion. For example, Lerner and Keltner (2000) found that fear and anger exert different influences on risk

perception and preference: fearful people made pessimistic risk assessments, whereas angry people made optimistic risk assessments.

The ATF provides a clear approach and predictions of discrete emotions for judgment and decision making (Lerner & Keltner, 2000, 2001). According to the ATF, each emotion is defined by a core appraisal; the emotion influences judgments in domains that are thematically related to the eliciting appraisal (Horberg, Oveis, Keltner, & Cohen, 2009). Han et al. (2007) insisted that the ATF can harness the predictive power of one dimension of emotion and embed it within a multidimensional theoretical framework. Han et al. (2007) stated that "each emotion carries with it motivational properties that fuel carryover to subsequent judgments and decisions" (p. 160). The ATF posits that emotions give rise to an implicit cognitive inclination to appraise upcoming events in line with the central appraisals characterizing the emotions: Appraisal tendencies help the individual respond to the event that evoked the emotion and shape perceptions of subsequent, unrelated situations, ultimately guiding behaviors (Han et al., 2007; Winterich, Han, & Lerner, 2010). To better understand appraisal tendencies, Winterich et al. (2010) distinguished appraisal tendencies with cognitive appraisals. Cognitive appraisals take temporal precedence; they refer to the thoughts elicited from a specific event that results in the experience of a specific emotion, whereas appraisal tendencies occur only after the emotion is elicited, referring to the predisposition to appraise a future event in line with the cognitive appraisals that characterize the emotion (Lerner & Tiedens, 2006; Winterich et al., 2010).

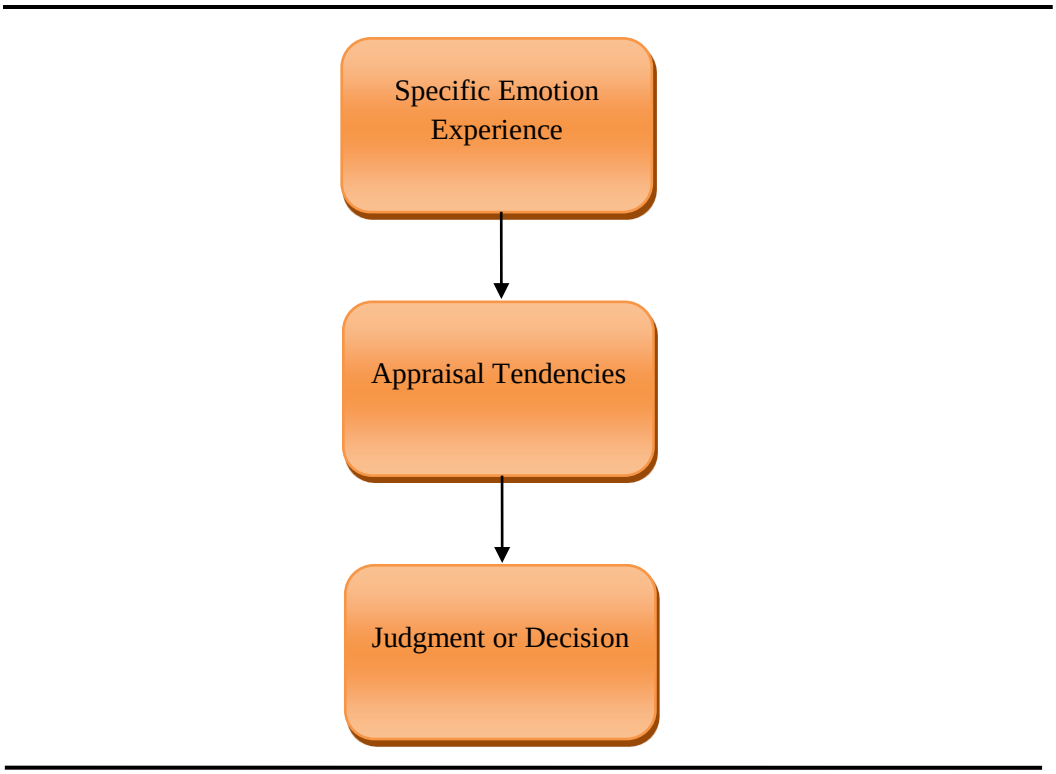


Figure 5. The Main Constructs of Appraisal-Tendency Framework

Using the ATF, Lerner et al. (2004) examined the emotional effect of disgust and sadness on economic transactions. The researchers predicted that two emotions would exert different influences on choice prices because of emotion-specific appraisal tendency difference: Disgust would reduce choice prices because the act of buying represented a potential source of contamination for disgusted people whereas sadness would increase choice prices because buying represented on opportunity to change circumstances for sad people. The results indicated that specific emotions influence the assessment of monetary value more specifically than global valence (Lerner et al., 2004).

Gooty et al. (2009) pointed out that, if researchers treat all positive discrete emotions as functionally the same, they would lose sight of the fact that different

outcomes can result from discrete emotions. In addition, Griskevicius, Shiota, et al. (2010) stated that overgeneralization may be misleading for both researchers and practitioners since researchers often emphasize the implications of broad positive emotion categories. On the other hand, the ATF has been successfully tested for negative emotions, although it has rarely been tested for positive emotions (Cavanaugh et al., 2007; Griskevicius, Shiota, et al., 2010; Strohminger et al., 2011) despite some evidence that positive emotion influences decision making. For example, Garg (2006) found that those in negative moods were more likely to generate favorable attitudes and consumption intentions for the unhealthy foods than healthier ones whereas those in positive moods preferred more nutritive foods. Thus, in the current dissertation, the ATF is used to understand the mechanisms determining how different positive emotional states influence consumers' decision-making process.

Positive emotions

Positive emotions promote helping and generosity and facilitate health-promoting behavior (Isen, 2001). According to Isen (2001), "positive emotions generally lead people to be gracious, generous, and kind to others; to be socially responsible; and to take the other's perspective better in interaction" (p. 80). In addition, when people are in positive emotional states, they perceive products more favorably than people who are not in such states (Erez & Isen, 2002). Similar findings indicate that subjects exposed to advertisements in context-induced positive emotional states formed more favorable ad and brand evaluations than those exposed to ads in negative context-induced mood states (Gardner & Wilhelm Jr, 1987). The researchers concluded that emotion-related

manipulations to study the processes involved attitude formation—namely, a positive mood may be associated with enhanced attitude toward positions advocated in persuasive messages (Gardner & Wilhelm Jr, 1987).

Furthermore, recent studies have found some evidence for differences among discrete positive emotions (Agrawal, Menon, & Aaker, 2007; Bartlett & DeSteno, 2006). Agrawal et al. (2007) revealed that self-referent health appeals are more effective among people in happy emotional states than in peaceful emotional states. In the domain of prosocial behaviors, participants in the gratitude condition exerted more effort to help their benefactors than those in the amusement condition (Bartlett & DeSteno, 2006).

However, researchers have limited experience with the consequences of discrete positive emotions, and much more research is needed (Cavanaugh et al., 2007; Lerner, Han, & Keltner, 2007), although different positive emotions have different effects on judgment and choice behavior. Indeed, Griskevicius, Shiota, et al. (2010) questioned the lack of emotion research on how different positive emotions might influence judgment and behavior. They insisted that it is important to understand the implications of specific positive emotions for consumer research (Griskevicius, Shiota, et al., 2010). Specifically, Cavanaugh et al. (2007) recommended using the principles of the ATF among a variety of theoretical frameworks to examine a larger range of discrete positive emotions. Han et al. (2007) also suggested that pride and compassion are promising positive emotions for future consumer decision-making research within the ATF. Both pride and compassion are used in advertising appeals (Aaker & Williams, 1998).

Pride and compassion

Psychologists distinguish between self-oriented (ego-focused) and other-oriented (other-focused) emotions, which refer to "the degree to which specific emotions systematically vary in the extent to which they follow from, and also foster or reinforce, an independent versus interdependent self" (Markus & Kitayama, 1991, p. 235). Self-oriented emotions such as pride, frustration, and anger have the individual's internal attributes as the primary referent whereas other-oriented emotions such as sympathy and shame have another person as the primary referent rather than one's internal attributes. According to Aaker and Williams (1998), self-oriented emotions are consistent with the need for individual awareness, experience, and expression while other-oriented emotions are consistent with the need for unity, harmony, and the alignment of one's actions with those of another. Giner-Sorolla (2001) suggested that, when self-conscious emotions are more available relative to hedonic emotions, greater self-control will be experienced and constitute a different subcomponent of affective attitude. As an empirical strategy, Lerner and Tiedens (2006) suggested that research must compare emotions that are highly differentiated in their appraisal themes on judgment and choice. Thus, this study explores self-/other-oriented emotions, focusing on two discrete emotions—namely, pride and compassion—that are strong examples of self-/other-focused emotions (Aaker & Williams, 1998; Markus & Kitayama, 1991). Furthermore, previous studies have suggested that status enhancement and altruism are two motivations for consumers' ecological behavioral intention (Griskevicius, Tybur, et al., 2010; Jeong, 2010).

Pride is defined as emotion that boosts self-esteem, thereby alerting an individual that others value his or her behavior (Griskevicius, Shiota, et al., 2010). Pride occurs as

the outcome of favorable comparisons of the self to others, or socially valued standards, which implicate rises in social status (Stipek, 1998; Tracy & Robins, 2004). According to Kitayama, Mesquita, and Karasawa (2006), pride is a socially disengaged emotion linked to an analysis of increased distance between the self and others. Consistent with the notion, certain acts may be done to create an impression upon others, acquire an identity for the self, or obtain a certain status (Hormuth, 1999). Giner-Sorolla (2001) suggested that emotions associated with long-term consequences tend to be more self-conscious emotions (e.g., pride, confidence, and self-respect). In sum, pride tends to involve one's internal attributes as the primary referent and fosters independent feelings, separation from others, and distinctiveness.

Ecological behavior can be used for self-presentation to others or self-identity formation (Hopper & Nielsen, 1991). For example, an empirical study by Mannetti, Pierro, and Livi (2004) demonstrated that an individual's personal identity of being an environmentally responsible person significantly contributes to the explanation of intentions to recycle. Sparks and Shepherd (1992) found a significant correlation between the measures of self-identity and green consumerism. On the other hand, Griskevicius, Tybur, et al. (2010) suggested that consumers' desires to have a public reputation as an ecological consumer encourage their ecological behavior. Kalafatis, Pollard, East, and Tsogas (1999) claimed that ecological behavior such as recycling paper and bottles bring internally generated pride. Furthermore, green consumers consider themselves opinion leaders; hence, they may provide word-of-mouth information that other consumers respect (Shrum, McCarty, & Lowrey, 1995). Therefore, Shrum et al. (1995) insisted that green consumers must be treated with respect.

Meanwhile, compassion involves the concern for those who suffer and the motivation to increase the welfare of others (Batson, 1987; McGregor, 2000). Compassion likely emerges evolutionarily as part of a care-taking system oriented toward those who are suffering or in need, such as vulnerable young children and the elderly, the sick as opposed to the healthy, and the poor as opposed to the wealthy (Mikulincer & Shaver, 2005). Similar emotions, such as empathy, sympathy, and concern produced by exposure to another's harm, increase the likelihood of behavior that reduces the suffering of others (Batson & Shaw, 1991). In sum, compassion tends to involve others' feelings or attributes as a primary referent, fostering friendly feelings, feelings of affiliation, and connectedness.

Environmentally concerned behavior can be induced by altruistic factors (Verhoef, 2005). The behavioral options are to act in an environmentally conscious manner as a means of reaching the ultimate goal of having the other's need reduced (Lee & Holden, 1999). Han, Lerner, and Keltner (2007) anticipated that priming compassion may increase desirable social consumption experiences. Meanwhile, an empirical research reported that a direct conflict exists between the consumption patterns of young consumers known as the Y generation (those born between 1978 and 1994) and compassionate sustainability values (Hume, 2010). For example, Hume (2010) revealed that only one candidate out of 60 practices waste recycling and six candidates practice environmentally friendly transportation. In sum, the overall pattern of results suggests that compassion has a consistently positive effect on ecological behavior. Altruistic motivation for choosing a green restaurant should, in theory, start with an awareness of a person in need. The internal response to this awareness is compassion, which in this

study is defined as an emotional response elicited by the welfare of people suffering from environmental problems.

Moderating effects of emotional states on the decision process

Lerner et al. (2007) suggested that reciprocal processes between the emotional and cognitive changes may exist. Griskevicius, Shiota, et al. (2010) argued that different emotions tend to rely on somewhat overlapping ideas, suggesting that combinations of mechanisms are likely to drive the effects of different emotions. Sparks, Conner, James, Shepherd, and Povey (2001) suggested that ambivalence has an implication for the prediction of intentions and found that ambivalence has a moderating effect on the attitude–intention relationship in the domain of food choice, where ambivalence is a psychological state in which a person holds mixed feelings toward some psychological object (Gardner, 1987). For instance, customers have mixed feelings when they consume animal products because the appeal of such products may be accompanied by moral concerns related to animal welfare issues (Sparks et al., 2001). Furthermore, Ainslie (1992) verified that clear evidence exists for intra-individual clashes of interest in food choice.

If emotional states have implications for the ability of these models to predict people's pro-environmental intention, more attention needs to be focused on developing and assessing practical methods for assisting behavioral intention change in the face of emotional states. Thus, as part of the deeper aim of understanding eco-friendly restaurant choice intention, this study assesses the moderating implications of emotional states (i.e., pride and compassion) for attitude–intention relationships.

Research Hypotheses

The proposed extended model completes the systematic integration of two key factors into the TPB, considering their possible relations with the existing TPB variables, and includes a specific path in order to better comprehend eco-friendly restaurant customers' complicated decision-making process. Based on the discussion in the literature review, the following tentative hypotheses have been developed:

H1: A positive relationship exists between attitude toward the behavior and intention to select an eco-friendly restaurant over the alternative: The higher level of attitude toward the behavior will increase the intention.

H2: A positive relationship exists between subjective norm and intention to select an eco-friendly restaurant over the alternative: The higher level of subjective norm will increase the intention.

H3: A positive relationship exists between perceived behavioral control and intention to select an eco-friendly restaurant over the alternative: The higher level of perceived behavioral control will increase the intention.

H4: A positive relationship exists between anticipated regret and intention to select an eco-friendly restaurant over the alternative: The higher level of anticipated regret will increase the intention.

H5: A consumer's emotional state moderates the influence of attitude toward behavior on intention to select an eco-friendly restaurant over the alternative: The positive

influence of attitude toward behavior on intention to select an eco-friendly restaurant will be stronger when consumers receive pride condition than when consumers receive compassion condition.

CHAPTER III

METHODOLOGY

Research Design

This study utilized both the survey and experimental techniques to collect data. Participants completed a questionnaire containing items measuring the study constructs. The experiment involved the manipulation of emotion using sets of PowerPoint slides shown to induce pride and compassion.

Sample

The sample population was 19- to 29-year-old students attending a large university in the Midwest of the U.S. in 2011.

The rationale for focusing on this population is twofold. First, this age group constitutes the consumers of the future. They are the consumers who have the capability of making a difference in the next decades. Their interest in these credence attributes and the underlying products will be crucial if such markets are to be developed and become successful. In addition to being the next generation of adults with consumer power, they currently also have considerable spending power and can influence food choices in their households.

Second, the researcher deliberately chose individuals with higher education because they are expected to have some knowledge on the concept of sustainability. Without some basic prior awareness of sustainability, responses on issues such as confidence, availability, perceived consumer effectiveness, attitudes, and behavioral intention toward sustainable products would be very hypothetical and the findings highly speculative (Vermeir & Verbeke, 2008).

Sample size was calculated using the N:q rule—that is, the ratio of cases (N) to the number of model parameters that require statistical estimates (Jackson, 2003; Kitayama et al., 2006). According to Kline (2011), this rule is applicable when the estimation method used is the maximum likelihood such as that of structural equation modeling. Kline (2011) also suggested that an ideal sample size-to-parameters ratio is 20:1. Thus, as the total of q is 21 in the model of this study, an ideal minimum sample size would be 420 (N = 420, or 20 × 21).

Questionnaire

As there is no standard definition of an eco-friendly restaurant, formative research (i.e., elicitation study) and validation were needed prior to the construction of the final questionnaire. Accordingly, an elicitation study and pilot test were conducted. Figure 6 provides an overview of these steps. As an elicitation method, semi-structured interviews were employed to explore the consumers' opinions about an eco-friendly restaurant because an eco-friendly restaurant is a new concept, such as which attributes are important for an eco-friendly restaurant in the consumer perspective and their emotional responses. This first step involved the purposive selection of participants who are

consumers of an eco-friendly restaurant of the Midwest University. The results of this preliminary step were used for the instrument development of the final questionnaire and the interpretations.

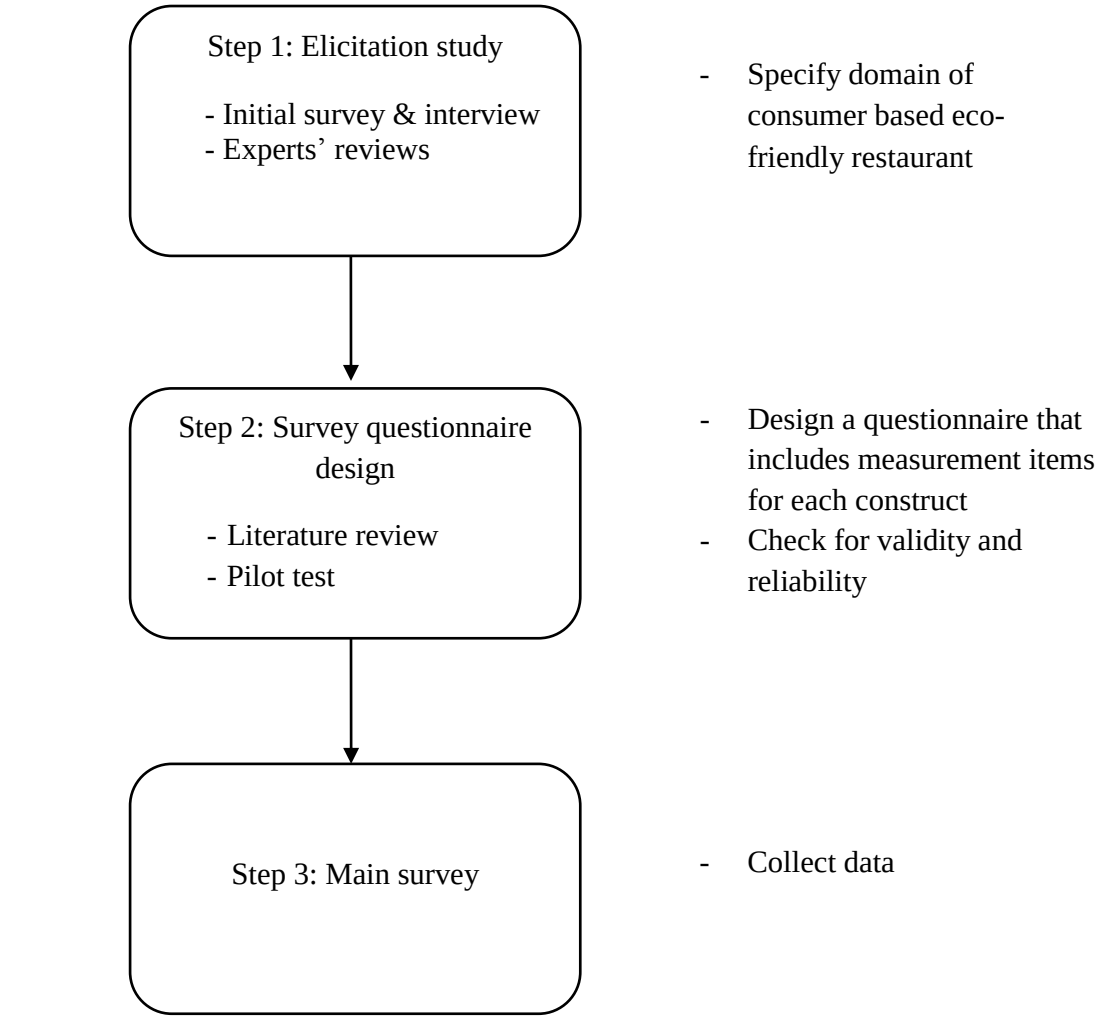


Figure 6. Steps Employed in Developing the Questionnaire

The final questionnaire was developed in English, and its content validity was established using experts' reviews. Three faculty members of the Hotel and Restaurant Administration Department at Oklahoma State University and one faculty member of the Spears School of Business commented on the content and wording of the questionnaire. Based on the comments, the questionnaire was modified. The following is a description of the questionnaire items that were included. After the description, the results of the pilot test are reported to check for validity and reliability of the instrument.

TPB constructs

The items for attitude toward the behavior, subjective norm, and perceived behavioral control were adapted from the existing TPB constructs scales, which are all direct measures (Han et al., 2010; Kim & Han, 2010). Attitude toward the behavior was measured using the statements "For me, selecting an eco-friendly restaurant for a meal, compared to a non-eco-friendly restaurant, is…," with four adjective pairs provided as descriptions (e.g., extremely undesirable/extremely desirable). The respondents rated the pairs on seven-point semantic differential scales. The subjective norm was measured using the statements "Most people who are important to me think I should select an eco-friendly restaurant for a meal," "Most people who are important to me would want me to select an eco-friendly restaurant for a meal," and "People whose opinions I value would prefer that I select an eco-friendly restaurant for a meal." A seven-point Likert-type scale (strongly disagree/ strongly agree) was used. The perceived behavioral control was measured using four statements, such as "Selecting an eco-friendly restaurant for a meal, compared to a non-eco-friendly restaurant, is completely up to me" and "I am confident that, if I want, I can select an eco-friendly restaurant for a meal compared to a non-eco-

friendly restaurant"; these were rated using a seven-point Likert-type scale (strongly disagree/ strongly agree).

Anticipated regret

Anticipated regret was measured with three seven-point scales: "If I did not select an eco-friendly restaurant for a meal, afterwards I would feel" (a) worried/not worried, (b) regret/no regret, and (c) tense/relaxed. Anticipated regret was adopted from the previous research (Richard et al., 1998).

Intention to select an eco-friendly restaurant

Intention to select an eco-friendly restaurant was adapted from existing scales (Han et al., 2010; Kim & Han, 2010) and used three seven-point scales (strongly disagree/strongly agree): (a) I will select an eco-friendly restaurant for a meal, (b) I will make an effort to select an eco-friendly restaurant for a meal, and (c) I am willing to select an eco-friendly restaurant for a meal.

Emotion experienced

After viewing a slideshow, participants reported the extent to which they experienced several emotions on a seven-point scale ranging from 1 (did not experience at all) to 7 (experienced very intensely). Compassion was assessed through a composite of ratings of "compassion," "sympathy," and "moved"; pride was assessed through a composite of ratings of "pride," "accomplishment," and "achievement." Scales were adopted from previous research (Oveis, Horberg, & Keltner, 2010).

Pilot Test

The instrument was pilot tested with 35 respondents selected from the target population. The pilot test identified the appropriateness and wording of the items in each scale, the length of the instrument, and the format of the scales adopted from the previous study.

Table 7. Reliability of the Dimensions Measured with the Instrument

Dimensions	Cronbach's alpah
Attitude toward the behavior (AT)	α = .904
undesirable/desirable	
unpleasant/pleasant	
unfavorable/favorable	
unenjoyable/enjoyable	
Subjective norm (SN)	α = .859
Most people who are important to me think I should select an eco-friendly restaurant for a meal.	
Most people who are important to me would want me to select an eco-friendly restaurant for a meal.	
People whose opinions I value would prefer that I select an eco-friendly restaurant for a meal.	
Perceived behavioral control (PBC)	α = .763
Selecting an eco-friendly restaurant for a meal, compared to a non eco-friendly restaurant, is completely up to me.	
I am confident that if I want, I can select an eco-friendly restaurant for a meal, compared to a non eco-friendly restaurant.	
I have enough money to select an eco-friendly restaurant for a meal.	
I have enough time to select an eco-friendly restaurant for a meal.	
Anticipated regret (AR)	α = .823
worried/not worried	
regret/no regret	
tense/relaxed	
Intention to select an eco-friendly restaurant (INT)	α = .821
I will select an eco-friendly restaurant for a meal	
I will make an effort to select an eco-friendly restaurant for a meal	
I am willing to select an eco-friendly restaurant for a meal	

Based on the results of content adequacy assessment, reliability test (Cronbach's alphas) and factor analysis, modifications of items were made. The reliability of the scales was tested by calculating their coefficient alphas (Cronbach's alphas) to determine the degree of internal consistency between the multiple measurements. The rationale for the assessment was that the individual items in each scale should be measuring the same construct and thus be highly intercorrelated and that the Cronbach's alpha should meet the recommended significance of 0.70 (Nunnally & Bernstein, 1994).

Table 7 summarizes validity and reliability of the different constructs in the instrument. The Cronbach's alphas of the different constructs range from 0.763 to 0.904. The results indicated that the instrument had a sufficient level of reliability and validity.

Stimulus Materials

Pride and Compassion were induced using two different sets of slides. The researcher manipulated emotional appeal by presenting half of the subjects with a set of slides boosting pride. Pride occurs as the outcome of favorable comparisons of the self to others, or socially valued standards, which implicate an elevation in social status (Stipek, 1998; Tracy & Robins, 2004). According to Kitayama et al. (2006), pride is a socially disengaged emotion, which is linked to the analysis of increased distance between the self and other. The other subjects received a set of slides boosting compassion. Compassion involves the concern for those who suffer and the motivation to increase the welfare of others (Batson, 1987; McGregor, 2000). Compassion likely emerges evolutionarily as part of a care-taking system orientation toward those who are suffering or in need, such as the vulnerable young children and the elderly, the sick as compared to the healthy, and

the poor as compared to the wealthy (Mikulincer & Shaver, 2005). Based on this notion, this study used both versions of 14 compassion slides created by Oveis et al. (2010) depicting images of helplessness, vulnerability, and physical and emotional pain and 14 pride slides depicting national and local landmarks (e.g., the American Flag, the Statue of Liberty) as well as images of Oklahoma State University sporting events and landmarks. A majority of the compassion slides featured humans in need.

Data Collection Procedures

Data for the study were gathered in several classroom sessions that hold between 20 and 50 students at different times of the day and on different days of the week. The researcher administered the questionnaire and conducted the experiments.

To control for potential reactance bias, subjects were instructed specifically not to communicate with or observe the work of others. In addition, they were instructed and carefully observed to ensure that they did not page ahead or go back and change previously completed responses. Subjects received a questionnaire asking them to respond to the augmented TPB model constructs with anticipated emotion as the added construct. After these measures were completed, printed instructions on the page asked the subjects to stop and wait for further instructions.

Participants were randomly assigned to the compassion or pride condition. The participants viewed a slideshow and then answered questions about the slide-viewing experience. Participants were instructed to watch and pay attention to the slideshow, then complete the questionnaire packet containing their eco-friendly restaurant choice

intention along with a questionnaire regarding the emotional experiences during the induction.

Compassion and pride were induced through the presentation of a two-minute slideshow. Each slideshow began with a 8-second display of a blank, black screen, followed by the continuous presentation of the 14 emotion-inducing slides against a black background for 8 seconds each—an approach used in previous study (Oveis et al., 2010). To ensure that the participants focused on the slideshow, they were instructed to write one or two words about the slide after viewing each slide.

After the slideshow was finished, a slide displayed the instruction to complete the paper-and-pencil questionnaire in the participant's possession. All slides were presented on a computer screen. After viewing the entire slideshow, the participants completed the questionnaire packet containing their eco-friendly restaurant choice intention, along with a questionnaire regarding emotional experiences during the induction. The questionnaire ended with the collection of demographic variables. An identical procedure was followed with the other group.

Data Analysis

For Study I utilizing a self-administered questionnaire, exploratory factor analysis, confirmatory factor analysis, structural equation modeling, and competing model analysis were used to analyze the data. For Study II utilizing two stimuli, a moderated hierarchical regression analysis was used. Statistics software SPSS 19.0, SAS® program (Enterprise Guide), and LISREL 8.8 were utilized for the data analysis.

Exploratory factor analysis

Following item analysis, the item content for each domain representation was inspected. Remaining items were subjected to a series of exploratory factor analyses with varimax rotation in order to reduce the set of observed variables to a smaller, more parsimonious set of variables. Eigenvalues and explained variance were used to identify the number of factors to extract (Hair & Anderson, 2010; Nunnally & Bernstein, 1994). After the number of factors in the conceptual model were estimated, items exhibiting low factor loadings (<.40), high cross-loadings (>.40), or low communalities (<.50) are candidates for deletion (Hair & Anderson, 2010). The remaining items were submitted to further exploratory factor analysis. In addition, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's test of sphericity were conducted to determine if the distributions of values were adequate for conducting the factor analysis.

Confirmatory factor analysis

A confirmatory factor analysis (CFA) was performed to verify the factor structure in the proposed scale and improve the measurement properties of the scale (Anderson & Gerbing, 1988; Bearden, Netemeyer, & Teel, 1989; Gerbing & Anderson, 1988). A confirmatory factor model using the maximum likelihood technique was estimated via LISREL 8.8. Items with low squared multiple correlations (individual item reliabilities) were deleted.

The validity of the measurement model is reflected by the goodness-of-fit indices (Hair & Anderson, 2010). Various fit indices—Chi-square, comparative fit index (CFI), goodness-of-fit index (GFI), normed fit index (NFI), root-mean-square error of

approximation (RMSEA), and standardized root mean square (SRMR)—were reviewed (see Table 8).

Table 8. Goodness-of-Fit Index and the Acceptable Range for Different Fit Measures

Fit Index		Acceptable range
Absolute fit measures	Likelihood ratio Chi-square to the degree of freedom	Acceptable level between 0.05 to 0.10 or 0.20. A large value Chi-square indicates a poor fit of the model to the data, and a small value indicates a good fit.
	Goodness-of-fit index (GFI)	Range from 0 (poor fit) to 1.0 (perfect fit). Higher values indicate a better fit. The marginal acceptance level is 0.90.
	Root mean square residual (RMSR) Standardized root mean square (SRMR)	The closer the value is to zero, the better the fit. The marginal acceptance level is 0.08 for RMSR and 0.05 for SRMR. Must be interpreted in relation to the size of the observed variances and covariances.
	Root-mean-square error of approximation (RMSEA)	Values between 0.05 and 0.08 are acceptable.
Incremental fit measures	Normed fit index (NFI)	Should exceed the minimum level of 0.90.
Parsimonious fit measures	Adjusted goodness-of-fit index (AGFI) Normed Chi-square (T2/df)	Value between 0 and 1. Recommended level is 0.90. Value between 1 and 3.

Convergent and discriminant validities

Convergent validity and discriminant validity were assessed in investigations of construct validity (Churchill, 1979). Convergent validity involves the extent to which a

measure correlates highly with other measures designed to measure the same construct. Discriminant validity involves the extent to which a measure is novel and does not simply reflect other variables. The evidence of convergent validity was verified in two ways. First, convergent validity was assessed from the measurement model by determining whether each indicator's estimated loading on the underlying dimension was significant (Anderson & Gerbing, 1988; Netemeyer, Johnston, & Burton, 1990). Second, AVE was used to test the convergent validity. It has been suggested that the AVE value should exceed .50 for a construct (Fornell & Larcker, 1981). To assess the discriminant validity between constructs, the procedure suggested by Fornell and Larcker was used. The test requires that the AVE for each construct be higher than the squared correlation between the two associated latent variables.

Structural equation modeling

Structural equation modeling (SEM) with latent variables via LISREL 8.8 was tested to determine the adequacy of the Mehrabian-Russell (1974) model by representing the constructs of the model and testing the hypotheses.

The primary focus in testing the structural model is to examine the relationships between latent constructs (Hair & Anderson, 2010). Hair and Anderson (2010) recommended that, when a structural model is being specified, the CFA factor pattern corresponding to the measurement theory should be used and the coefficients for the loadings and the error variance terms should be estimated along with the structural model coefficients.

The main advantage of using SEM over using factor analysis and regression analysis separately to test the model is that it could simultaneously estimate all path coefficients and test the significance of each causal path (Bentler, 1980). In addition to Cronbach's alphas, item reliabilities, composite reliabilities, and AVE for the measures were also computed to check the reliability of this Mehrabian-Russell model. Composite reliability and AVE for each construct were calculated using the following formulas:

$$\text{Composite Reliability} = \frac{(\Sigma \text{ standardized loadings})^2}{(\Sigma \text{ standardized loadings})^2 + (\Sigma \text{ indicator measurement error})}$$

$$\text{AVE} = \frac{(\Sigma \text{ squared standardized loadings})}{(\Sigma \text{ squared standardized loadings}) + (\Sigma \text{ indicator measurement error})}$$

Competing model strategy

The purpose of the competing model strategy is to compare the original model with a number of alternative models so that it reveals that no better-fitting model exists (Hair & Anderson, 2010). According to Hair and Anderson (2010), merely an acceptable fit is not enough to guarantee that the intended original model is the best-fitting model for the data.

Competing models are nested models that refer to models that contain the same number of variables and can be formed from the other model by either adding or deleting paths. Competing models are compared using the Chi-square ($\chi 2$) difference statistic ($\Delta\chi 2$).

Hierarchical multiple regressions

The moderating effect for this study was tested with the hierarchical multiple regression analysis using SPSS19. Several different regression slopes represent the association, rather than just one, and the association of the independent variable with the outcome variable depends on the value of the moderator variable. First, the independent variables, including the moderator, are entered into the model as predictors of the dependent variable. The independent variables do not have to be significant. In the next step, an interaction term (the product of two independent variables, which represents the moderator effect) is entered. If the interaction term shows a statistical significance on the dependent variable, it is considered that a moderating effect is present. The interaction term represents a joint relationship between the two independent variables, and this relationship accounts for the additional variance in the outcome variable beyond that explained by either single variable alone.

CHAPTER IV

RESULTS AND FINDINGS

This chapter presents the results of both Study I, a survey design (utilizing a self-administered questionnaire) and Study II, an experimental design (utilizing two stimuli: experimental and survey techniques). The purpose of Study I was to address objective 1 and 2 of the research: namely, to test the ability of TPB constructs to predict intention to select an eco-friendly restaurant for a meal and to augment the TPB by examining whether the addition of anticipated regret will enhance the predictive validity of the TPB. The goal of Study II was to examine objective 3 of the research: namely, to examine the moderating effect of consumers' emotion (i.e. pride and compassion) between the consumers' attitude toward behavior and their intention to select an eco-friendly restaurant for meal.

Results and Findings of Study I

The findings of the Study I are described in three sections. The first section presents the results and a brief discussion of the demographic and dining characteristics of the respondents. The second section reports the results of the confirmatory factor analyses. The third section presents the process of hypothesized model testing and identification of the final model.

Demographic and dining-related profiles of the respondents

Among 438 responses received, 27 responses were deleted for excessive missing data. Thus, a total of 411 responses were used for data analysis. Detailed sample characteristics are shown in Table 9. Of the 411 respondents, 65% of the respondents in this study were female and 35% were male. The gender difference in the response rate is a reflection of the population demographics. The majority, 90% of the respondents fell into the age range of 18 to 23, reflecting the population demographics. This result reflected that the sample population has the characteristic of the target population. The respondents in the study included a broad cross-section of class standing (Freshman; Sophomore; Junior; Senior; 5^{th} year +). Approximately 31% (127) of the participants were sophomore or freshman and 60.6% (249) were junior or senior undergraduate students.

In terms of frequency of restaurant visit, 46.7% indicated that they have visited a restaurant at least two or three times per week while 42.6% had more than 4 times. This indicated that the initial filtering instruction was an effective approach the restaurant consumers, providing a good sample. In addition, almost 98% of the respondents indicated that they were in company of one or more people.

Data were collected from September 27, 2011 to November 7, 2011.

Table 9. The Demographic and Dinning-Related Profiles of the Respondents

Variable	Frequency	Percent
Gender		
Male	142	34.5
Female	269	65.5
Age		
18	40	9.7
19	53	12.9
20	93	22.6
21	92	22.4
22	67	16.3
23	21	5.1
24 - 29	36	8.8
30 - 35	9	2.2
Current education year level		
Freshman	55	13.4
Sophomore	72	17.5
Junior	113	27.5
Senior	136	33.1
5^{th} year or beyond	29	7.1
Grads	6	1.4
Frequency of restaurant visit (per week)		
1 time	44	10.7
2 times – 3 times	192	46.7
≥ 4 times	175	42.6
Number of companies upon visit		
0	10	2.4
1	94	22.9
2	155	37.7
3	98	23.8
≥ 4	54	13.2

Exploratory factor analysis

Exploratory factor analysis (via principal component analysis) was conducted using SAS® program (Enterprise Guide) to identify the underlying dimensions of exogenous variables and check if all measured items were related to each factor by a factor loading estimate. Initially, a principal component analysis with VARIMAX rotation was used to condense information contained in the 14 attributes into a smaller set of new composite variates.

Table 10. KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.837
Bartlett's Test of Sphericity	Approx. Chi-Square	4433.13
	df	91
	Sig.	.000

Bartlett's test of sphericity and the Kaiser–Meyer–Olin Measure of Sampling Adequacy were used to check the degree of intercorrelations among the variables and the appropriateness of factor analysis. The result of the Bartlett's test was statistically significant (sig. > 0.05), indicating the correlations among at least some of the variables. The necessary threshold of sampling adequacy was provided as: .80 or above, meritorious; .70 or above, middling; .60 or above, mediocre; .50 or above, miserable; and below .50, unacceptable (Hair & Anderson, 2010). The result of the Measure of Sampling Adequacy was .837, supporting that each variable is adequately predicted without significant error by the other variables. Thus, both tests in Table 10 indicated that the data is appropriate for a factor analysis.

To determine the number of factors, four criteria were utilized: eigenvalue higher than 1.0, scree test criteria, percentage of variance explained, and a theory. As a result, four factors were identified with 80.14% of total variance explained. Furthermore, the theory and the proposition of this study expected four factors. Another principal component analysis with VARIMAX rotation was conducted to extract the four fixed factors.

To identify the significant factor loadings, both practical and statistical significances were regarded. Based on the sample size of 411, a factor loading of 0.30 or greater is appropriate (Hair & Anderson, 2010), but for practical significance purposes a factor loading of 0.5 was used instead. Ultimately, four factors that included 14 items were identified. There was no persistently cross-loaded item, greater than ± .40. The results of the principal component analysis with VARIMAX rotation were shown in Table 11. To identify structure through data summarization, an exploratory factor analysis with VARIMAX rotation and maximum likelihood analysis factoring method was conducted and compared with the results of principal component analysis. The results of the exploratory factor analysis indicated a similarity with the previous results and suggested that it meets the fundamental requirements for the further analyses of the data in this study.

Table 11. Factor Analysis

Attributes	Factor Loadings				Communality
Factor 1: Attitude	**F1**				
Attitude 4 toward selecting GR	.912				.875
Attitude 3 toward selecting GR	.893				.871
Attitude 2 toward selecting GR	.892				.848
Attitude 1 toward selecting GR	.866				.833
Factor 2: Subjective Norm		**F2**			
Most people who are important to me would want me to select an eco-friendly restaurant for a meal		.910			.905
People whose opinions I value would prefer that I select an eco-friendly restaurant for a meal		.896			.896
Most people who are important to me think I should select an eco-friendly restaurant for a meal		.895			.881
Factor 3: Anticipated Regret			**F3**		
If I did not select an eco-friendly restaurant for a meal, afterwards I would feel tense			.914		.863
If I did not select an eco-friendly restaurant for a meal, afterwards I would feel regret			.905		.882
If I did not select an eco-friendly restaurant for a meal, afterwards I would feel worried			.905		.886
Factor 4: Perceived Behavioral Control				**F4**	
I am confident that if I want, I can select an eco-friendly restaurant for a meal, compared to a non eco-friendly restaurant				.822	.684
I have enough time to select an eco-friendly restaurant for a meal				.786	.637
I have enough money to select an eco-friendly restaurant for a meal				.786	.621
Selecting an eco-friendly restaurant for a meal, compared to a non eco-friendly restaurant, is completely up to me				.726	.537
Eigenvalue	5.338	2.459	1.875	1.546	
Variance (%)	38.13	17.56	13.39	11.04	
Cumulative Variance (%)	38.13	55.69	69.09	80.13	
Cronbach's Alpha	.94	.94	.93	.79	

Measurement model

Confirmatory factor analysis (CFA) was conducted to assess the adequacy of the measurement components of the proposed model. For purposes of CFA, a covariance matrix was employed. LISREL program (version 8.8) was utilized to estimate the measurement model.

To assess the validity of the measurement model, overall model fit and additional diagnostic information such as path estimates, standardized residuals, and modification indices were utilized (Hair & Anderson, 2010). First, the model fit for the measurement model was good (χ^2 = 296.82, df = 109, comparative fit index [CFI] = .98; goodness-of-fit index [GFI] = .92; standardized root mean residual [SRMR] = .04; normed fit index [NFI] = .96). The AGFI is slightly lower than the suggested cutoff point of 0.9. As shown in Table 12, the fit indices showed the measurement model with all of the variables to have a good fit.

Table 12. The Results of the Fit Indices

χ^2 with degrees of freedom	296.82 (P = 0.00) with 109 df	Fit guidelines
GFI	0.92	$\geq$ 0.9
RMSEA	0.067	< 0.05 to 0.08
RMR	0.080	$\leq$ 0.08
SRMR	0.040	< 0.05
NFI	0.96	$\geq$ 0.9
CFI	0.98	$\geq$ 0.9
AGFI	0.89	$\geq$ 0.9
χ^2/df	2.72	1 to 3

Once the measurement model was identified as an acceptable fit, each of the constructs was evaluated for convergent validity and discriminant validity. The loadings of the indicators were evaluated and no non-significant loadings were found. The results from the LISREL outputs show all the indicator loadings to be statistically significant for the hypothesized constructs, which supports the theoretical assignment of the indicators to each construct (Hair & Anderson, 2010). Table 13 shows the results for the measurement model. All of the path estimates were significant with high factor loadings ranging from .55 to .93, surpassing the threshold value of |.5| (Hair & Anderson, 2010). The squared multiple correlations (SMCs) range from 0.30 to 0.87, which indicates a moderate to high reliability. These correlations represent the reliability (convergent validities) of the measures. In addition to assessing the reliability of the individual indicators, the composite reliability and average variance extracted for each latent construct were also calculated. The composite reliability (CR) for each construct surpassed the threshold value of .70. The average variance extracted (Mikulincer & Shaver) for the most variables surpassed the threshold value of 0.50. However, for the perceived behavioral control variable, the average variance extracted was slightly below the 0.5 threshold, which indicates that the measurement error accounted for a greater amount of variance in the indicators than the underlying latent variable. In conclusion, the assessment of the measurement model suggested that the validity and reliability of the operationalization of most of the latent variables was acceptable.

Table 13. The Results of the Measurement Model

Dimensions	**Std. loading**	**SMC***	**CR***	**AVE***
Attitude toward the behavior *(α =.944)*			.94	.80
undesirable/desirable	.89	.79		
unpleasant/pleasant	.88	.78		
unfavorable/favorable	.92	.84		
unenjoyable/enjoyable	.91	.83		
Subjective norms *(α =.941)*			.94	.84
Most people who are important to me think I should select an eco-friendly restaurant for a meal.	.90	.81		
Most people who are important to me would want me to select an eco-friendly restaurant for a meal.	.93	.87		
People whose opinions I value would prefer that I select an eco-friendly restaurant for a meal.	.92	.85		
Perceived behavioral control *(α =.789)*			.79	.49
Selecting an eco-friendly restaurant for a meal, compared to a non eco-friendly restaurant, is completely up to me.	.55	.30		
I am confident that if I want, I can select an eco-friendly restaurant for a meal, compared to a non eco-friendly restaurant.	.70	.49		
I have enough money to select an eco-friendly restaurant for a meal.	.75	.57		
I have enough time to select an eco-friendly restaurant for a meal.	.77	.59		
Anticipated regret *(α =.928)*			.93	.81
worried/not worried	.92	.85		
regret/no regret	.92	.84		
tense/relaxed	.87	.75		
Intention to select an eco-friendly restaurant *(α =.795)*			.82	.61
I will select an eco-friendly restaurant for a meal	.81	.65		
I will make an effort to select an eco-friendly restaurant for a meal	.92	.84		
I am willing to select an eco-friendly restaurant for a meal	.57	.32		

The discriminant validity of the measurement model was also examined, which indicates the extent to which a construct is truly distinct from other constructs (Hopper & Nielsen, 1991). The correlations among the latent constructs and t-values were reviewed. Table 14 shows that the correlations among and between the exogenous and endogenous constructs ranged from 0.06 to 0.66, which indicates an appropriate level of inter-

correlation. Furthermore, the squared correlations between the constructs (i.e., Φ^2) were smaller than AVE of each construct. Therefore, these results provide evidence of discriminant validity.

Table 14. Correlation among the Exogenous and Endogenous Constructs

	1	2	3	4	5
1. Attitude	1.00				
2. Subjective norm	0.49	1.00			
3. Perceived behavior control	0.06	0.19	1.00		
4. Anticipated regret	0.40	0.37	0.08	1.00	
5. Intention	0.58	0.66	0.16	0.48	1.00

Structural model

As a satisfactory measurement model was obtained, structural equation modeling (SEM) analysis method followed to evaluate the overall model. The purpose of evaluating the structural model was to determine whether the theoretical relationships specified are supported by the data. Again, various fit indices were used to check statistical significances of each path and overall fit. Overall model fit for the structural model was good (χ^2 = 296.82, df = 109, comparative fit index [CFI] = .98; goodness-of-fit index [GFI] = .92; standardized root mean residual [SRMR] = .04; normed fit index [NFI] = .96). After the overall structural model was evaluated, the individual parameter estimates were examined. The hypotheses were tested by evaluating the relationships

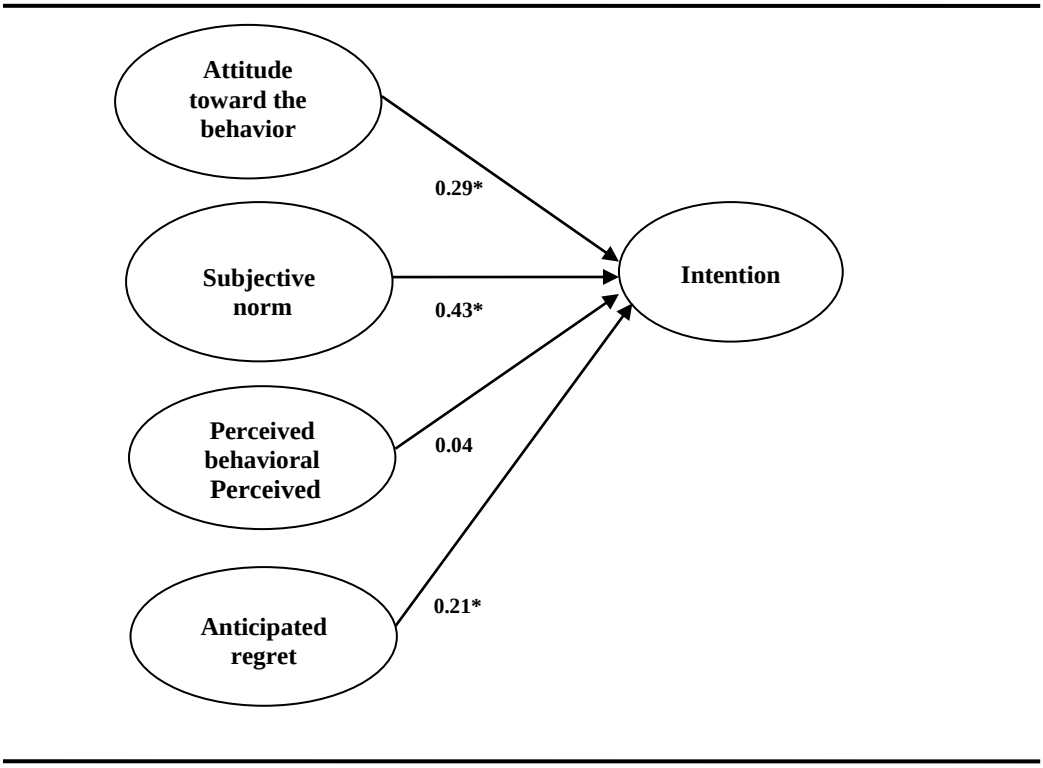
between the endogenous and exogenous variables. Figure 7 presents the path diagram for the overall structural model with observed variables and Table 15 shows the results of path analysis of the structural model.

Among the four hypotheses, the t-values of three paths were statistically significant at $p < .05$. The signs of all significant paths were consistent with the hypothesized relationships among the latent variables. H1, H2, and H4 postulated positive relationships among the three antecedents of consumer intention. Attitude (γ 11 =.29, $p < .05$), subjective norm (γ 12 =.43, $p < .05$), and anticipated regret (γ 14 =.21, $p < .05$) all showed significant relationship on consumer intention. Thus, the three hypotheses (i.e., H1, H2, and H4) were supported. The amount of variance in the endogenous variable in the structural model was assessed by the SMCs for structural equations. The SMC for 'consumer intention' was .56, indicating that 56% of the variance in intention was explained by attitude, subjective norm, and anticipated regret.

Table 15. Structural Path Estimates of the Original Model

Path to	**Path from**	**H_0**	**Standardized estimate**	***t*-value**
***γ* paths**				
Behavioral Intention	Attitude	H1	.29	5.73*
	Subjective Norm	H2	.43	8.17*
	Perceived Behavior Control	H3	.04	1.00
	Anticipated Regret	H4	.21	4.52*
Model fit indices				
df = 109, X^2 = 307.82, RMSEA = .067, CFI = .98, SRMR = .040				

* Significant $p < .05$



Note: *p < .05

Figure 7. Path Estimates in the Structural Model

Competing model

The final model assessment was to compare the original model to a competing model. This study presented one nested model by deleting one path to compare with the original model and test chi-square differences ($\Delta \chi^2$) between models. Finally, this approach determined what model was relatively superior to another.

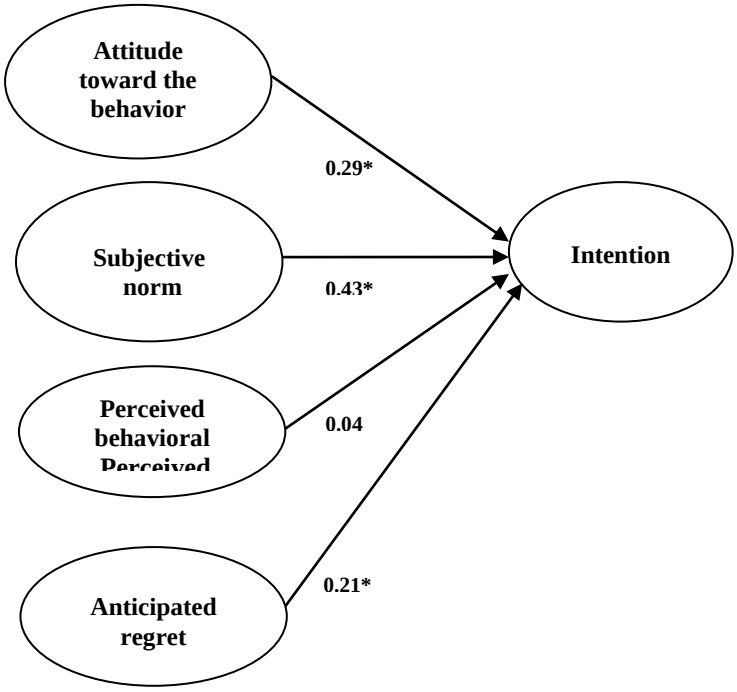
The competing model was tested without the direct path from anticipated regret to purchase intention since the goal of this study was to contribute to the development of additional theoretical linkages such as anticipated emotion within the extended TPB. If

the chi-square difference test shows no significance, the competing model would be more desirable because it is more parsimonious than the original model of the study.

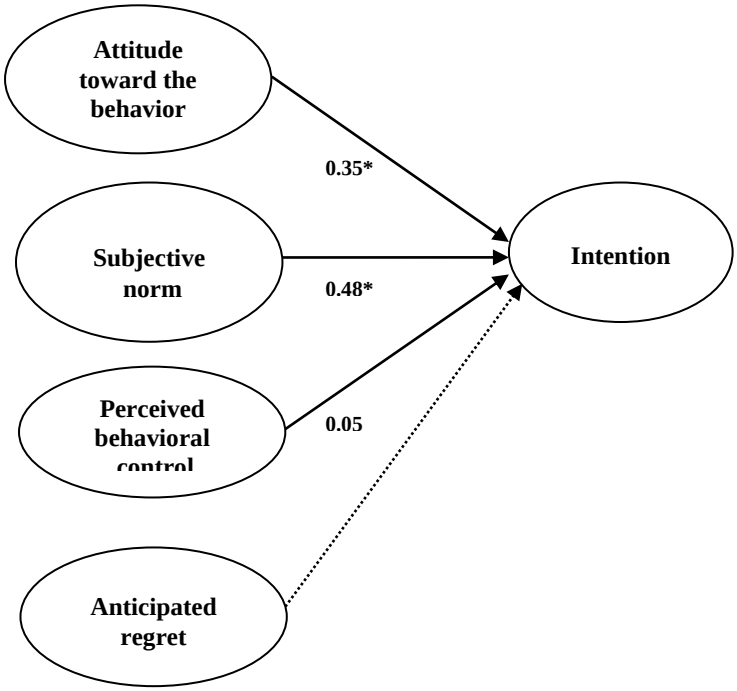
Table 16. Summary of Model Comparison

Fit Index	Original Model	Competing Model
χ^2	296.82	317.72
df	109	110
$\Delta \chi^2$	-	20.9
Δ df	-	-1
GFI	0.92	0.91
RMSEA	0.067	0.070
RMR	0.080	0.092
SRMR	0.040	0.047
NFI	0.96	0.96
CFI	0.98	0.97
AGFI	0.89	0.88

The Chi-square (χ_2) difference test was performed to examine whether there was a significant difference in estimated construct covariance explained by the two structural models. The results of the chi-square difference test among models (Table 16) reveal that there was a significant difference between the original model and the competing model ($\Delta df = 1$, $\Delta\chi^2 = 20.9$, critical value of χ^2at df = 1 is 3.8415). Therefore, the original model was supported.



Original model (df = 109, χ_2 = 296.82)



Competing model (df = 110, χ_2 = 317.72)

Note: *p < .05; ⋯⋯▸ = removed

Figure 8. The Results of the Chi-square (χ^2) Difference Test

Results and Findings of Study II

Study II used experimental and causal research designs. The experiment was designed as a two-group, post-test only, randomized experimental design. The findings of Study II are presented in three sections. The first section presents the group characteristics. The second section reports the results of the manipulation check. The third section presents the process of hypothesized model testing.

Group characteristics

Participants were randomly assigned to the compassion or pride condition or control group. The participant viewed a slide show and then answered questions about the slide-viewing experience. Participants were instructed to watch and pay attention to a slide show then complete a questionnaire packet containing their eco-friendly restaurant choice intention, along with a questionnaire related to the emotional experiences during the induction. Finally, similar numbers of participants for each group, pride (n = 182) and compassion (n = 184), were obtained and analyzed. Control group was used to compare with pride group and compassion group. There is no difference between control group and pride group, and control group and compassion group on intention to select an eco-friendly restaurant. The results showed that no direct effects exist. Thus, two treatment groups are used for the hypothesis 5 test: Moderating effect.

Table 17. Group Characteristics

Characteristics	Pride Group	Compassion Group	Control Group
Sample Size	182	184	45

Manipulation check

Participants rated their experience of each of the several feelings relevant to pride and compassion during the emotion induction task on a 1 (*did not experience at all*) to 7 (*experienced very intensely*) scale. Composite ratings of pride (proud, accomplishment, achievement; α = .96) and compassion (compassion, sympathy, moved; α =.81) were computed from these reports.

Table 18. Emotions Elicited by the Pride and Compassion Slides

	Slide condition	
	Pride (*n* = 182)	**Compassion** (*n* = 184)
Emotional feeling	*Mean (SD)*	*Mean (SD)*
Pride	5.52 (1.256)	2.21 (1.465)
Accomplishment	5.18 (1.373)	2.27 (1.565)
Achievement	5.24 (1.416)	2.26 (1.587)
Compassion	4.66 (1.738)	5.73 (1.388)
Sympathy	3.35 (1.678)	6.02 (1.278)
Moved	4.27 (1.509)	5.09 (1.573)

Participants in the pride condition reported more pride (M = 5.31, SD = 1.23) than compassion (M = 4.09, SD = 1.32), t = 12.54, p = .001, and participants in the compassion condition reported more compassion (M = 5.61, SD = 1.24) than pride (M = 2.24, SD = 1.44), t = 26.46, p = .001. Participants in the pride group reported significantly higher means of pride than did participants in the compassion group, t = 21.80, p = .001, and participants in the compassion group reported significantly higher means of compassion than did participants in the pride group, t = 11.27, p = .001.

Moderated hierarchical regression analysis

Hierarchical regression analyses were utilized to identify a moderating

effect of emotion. According to Pedhazur (1997), hierarchical regression analysis is a useful method of understanding the effect of a variable after having controlled for other variable(s), rather than to identify the relative importance of variables. Main effects are entered first into hierarchical methods, and interaction term entered in the next step. Although main effects are entered first, they are not the main concern in a moderating effect test. The proportion of variance explained by all the independent variables is partitioned incrementally, indicating the increment in the proportion of variance accounted for by each independent variable when it is entered into the equation (Pedhazur, 1997). Among 366 participated in this second study, participants were divided into two groups: pride group (n = 182) and compassion group (n = 184).

Table 19. The Moderating Effect

Model	**Variable entered**	**F**	**B**	**b**	**t**	**R^2**	**R^2adj.**	**ΔR^2**
1	Constant	149.506**	1.341		5.234**	.291	.289	-
	Attitude		.582	.540	12.227**			
2	Constant	75.240**	1.385		5.327**	.293	.289	.002
	Attitude		.585	.542	12.262**			
	Emotion		-.117	-.044	-.990			
3	Constant	51.915**	1.860		5.301**	.301	.295	.008*
	Attitude		.493	.457	7.474**			
	Emotion		-1.114	-.417	-2.179*			
	Attitude*Emotion		.191	.397	2.004*			

**p <.01, *p <.05

H5 proposed the moderating role of emotion of the effect of attitude on consumer intention. Table 20 shows significant interaction between attitude and emotion as a

determinant of consumer intention (t= 2.004, p<.05), while the F test for the three models was significant, implying that the models fit the data. Thus, H5 was supported.

H5: A consumer's emotional state moderates the influence of attitude toward behavior on intention to select an eco-friendly restaurant over the alternative: The positive influence of attitude toward behavior on intention to select an eco-friendly restaurant will be stronger when consumers receive pride condition than when consumers receive compassion condition.

Simple slope analysis was conducted to further identify a moderating effect of emotion on the relationship between attitude and intention. The results indicated that attitude is more strongly associated with intention for the 'pride' group than the 'compassion' group.

Table 20. The Results of Simple Slope Analysis (Attitude*Emotion)

Group	**Simple lope**	***t*-value**
Pride	.684	9.67***
Compassion	.493	7.79***

DV = Intention; *** p < .001

The interaction can best be described when presented graphically. Figure 9 shows the interaction effect of attitude and emotion on consumer intention. The results suggest that if consumers are in compassion condition, the impact of attitude on intentions was not so strong relatively. On the other hand, when consumers are in pride

condition, attitude became stronger for the intention to select an eco-friendly restaurant. One possible interpretation of these findings in that one of these mechanisms is sufficient to motive consumers to select an eco-friendly restaurant.

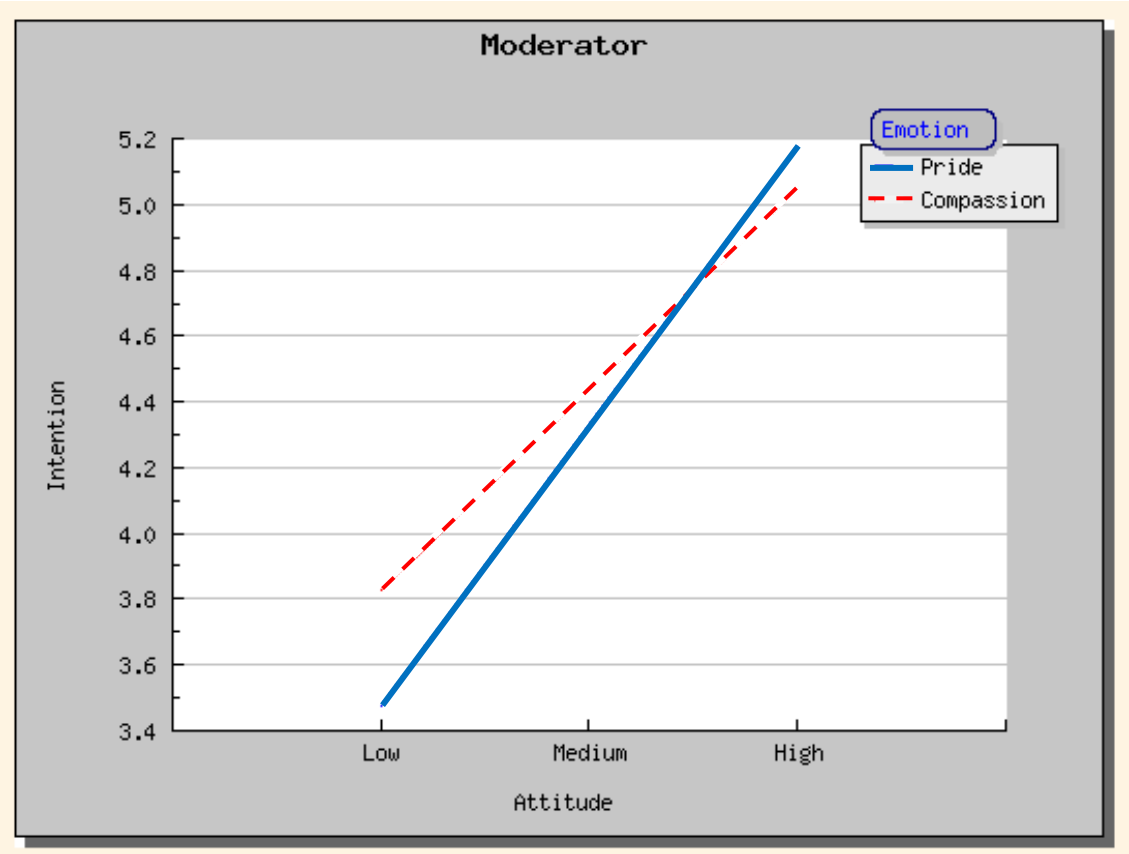


Figure 9. Interaction Effect of Attitude and Emotion on Intention

Summary Results

The results of structural equation modeling (SEM) show that three path relations among constructs that were hypothesized were supported. Attitude, subjective norm, and anticipated regret showed significant relationship on consumer intention. However, perceived behavioral control failed to significantly influence the intention. Thus, the three hypotheses (i.e., H1, H2, and H4) were supported.

Hierarchical multiple regression tested the moderating effects of emotion in the relationships between attitude and intention and revealed that there was moderating effects present in the hypothesized relationships. Thus, H5 was supported.

The next chapter concludes the research with a discussion on research findings, implications and limitations, and future research issues.

CHAPTER V

DISCUSSION, CONCLUSION, AND LIMITATIONS

This chapter summarizes the findings of Studies I and II and discusses the theoretical and managerial implications of the findings. The limitations and suggestions for future research are discussed as well.

Discussion of Findings

The main purpose of this study was to develop and test a model that explains the potential influences of consumer attitudes and emotions, concerns, and beliefs about intentions to select an eco-friendly restaurant. This study investigated the theoretical and empirical evidence for the relationships among the TPB constructs and anticipated regret and examined how the inclusion of anticipated emotion in the TPB improves its explanatory power of consumer intentions. In addition, this study examined whether emotional states have moderating effects between attitude and consumer intentions. Specifically, in relation to attitude toward the behavior, this study predicted that specific discrete self-oriented (i.e., pride) and other-oriented (i.e., compassion) emotions are associated with a stronger attitude toward intention. The main findings that pertain to each of the research questions are summarized here.

Research question (1):

(1) Which construct of the TPB model explains the greatest variance in the consumers' behavioral intention to select an eco-friendly restaurant?

The prediction of eco-friendly restaurant choice from TPB variables was similar to the levels of prediction obtained in studies of other behaviors. More than 40% of the variance in behavior was explained, which is above the range (i.e., 20**%** to 40% of the variance) explained in previous meta-analytical reviews (Armitage & Conner, 2001; Conner et al., 2002; Godin & Kok, 1996; Sheeran & Orbell, 1999).

Table 21 summarizes the results of the hypothesis testing. The results indicate that not all of the TPB constructs have a significant correlation with intention. The findings revealed that subjective norm was the best predictor of behavioral intentions to select an eco-friendly restaurant. Attitudes also have a significant predictive ability. However, perceived behavioral control was a non-significant independent variable in predicting the influence of TPB constructs.

These findings provide a different picture than that presented in an earlier study of consumers in a green hotel setting (Han et al., 2010; Kim & Han, 2010). In those studies, attitude was the strongest predictor among the TPB components, all of which significantly influenced intention to visit a green hotel (Han et al., 2010) or pay comparable regular hotel prices for a green hotel (Kim & Han, 2010). However, in this study, perceived behavior control was found to have a non-significant positive influence on intention to select a green restaurant. Unlike a green hotel, a green restaurant is in the

developing stage so consumers do have limited accessibility. In addition, consumers are likely to select restaurants with short notice and that are very near their locations.

Interestingly, subjective norm has the most significant predictive power while, according to a meta-analysis by Armitage and Conner (2001), subjective norm was most often the weakest component among the TPB components responsible for the explained variation in intention. For example, Thompson, Haziris, and Alekos (1994) found that subjective norm was a poor predictor of behavioral intention in food choice applications and claimed that much of the food choice can be characterized as habitual behavior with a low involvement with the act. The difference between the results of these previous studies and the current research may stem from the fact that the current study specifically examines an ecological behavior in relations to the future behavioral intention. The different result may be explained from an economics of information perspective, as Hansen, Jensen, and Solgaard (2004) presented. Inexperienced ecological restaurant consumers may be imperfectly informed; as such, they keep an open mind toward possible guidance from friends and relatives. Within the domain of pro-environmental behavior, individuals can be expected to be sensitive to normative guidance/influence because considerations may involve new types of risk. On the other hand, subjective norm may have a strong predictive power when social pressure from others to perform the behavior is high (Moan, Rise, & Andersen, 2005). Further investigations are needed to confirm the significance of social pressure and reference groups on consumer ecological behavior in the restaurant context.

Since attitudes toward behavior demonstrated a considerable impact on decisions to select an eco-friendly restaurant, they would seem to be the most appropriate cognitive

targets for interventions in this area. Thus, to attract customers to eco-friendly restaurants, their attitude toward behavior and their perceptions of the opinions of the people who are important to them with regards to behavior must be influenced. Marketers of eco-friendly restaurants should actively seek ways to increase environmental concerns (e.g., promoting pro-environmental campaigns) that potentially contribute to building their favorable attitude toward ecological consumption.

Perceived behavioral control failed to significantly influence the intention-formation process. Ajzen (1991) suggested that the role of attitude, subjective norms, and perceived behavioral control in the prediction of intention might vary across behaviors and situations. This finding is explained with the claim made by Moan, Rise, and Anderson (2005) that perceived behavioral control may be less predictive of intentions when attitudes are strongly related to intentions. Another explanation may be related to the fundamental problem with a measure of perceived behavioral control: It is difficult for an individual to predict his or her perceived behavioral control related to future behaviors (Notani, 1998).

One implication of these findings is that creating social pressure to bear on an individual to consume eco-friendly restaurant is likely to be effective. In addition, customers' intentions to select an eco-friendly restaurant largely depend on the positive/negative way in which their salient referents such as family, relatives, or friends consider selecting an eco-friendly restaurant. Thus, restaurant marketers should find ways to influence such referents to develop favorable perceptions of their restaurants. Presenting the particular eco-friendly attributes of their restaurants to the public through various information sources may improve such referents' favorable perceptions of an

eco-friendly restaurant. In addition, it may be more profitable to invest in educational programs such as undergraduate courses in hospitality programs that make future restaurant operators and managers as well as consumers more aware of the benefits from pro-environmental practices at eco-friendly restaurants.

Research questions (2) and (3):

(2) Does anticipated regret have a significant influence on consumers' intention to select an eco-friendly restaurant?

(3) Does the addition of an emotional component, anticipated regret, to the TPB lead to a better explanation of behavioral intentions beyond the TPB components in the context of eco-friendly restaurant selection?

The TPB variables and the additional predictor, anticipated regret, were successfully applied to intention to engage in an ecological behavior, which had not previously been addressed from the perspective of selecting an eco-friendly restaurant. The findings suggest that decision-making models such as the TPB should incorporate emotions and take greater account of the factors that facilitate the enactment of intentions. In addition, factor analyses confirmed that anticipated regret and attitude were distinct constructs; thus, affect is considered to be an independent variable from attitude.

Anticipated regret was the third significant predictor of intentions and contributed a modest increment in variance. These findings seem to provide convincing evidence that anticipated regret about not selecting an eco-friendly restaurant increases intentions to select an eco-friendly restaurant.

These findings are in line with the theoretical analyses of the considerable power of anticipated regret observed in the conservational behavior domain (Kaiser, 2006). One meta-analysis examined 32 empirical tests of the TPB and anticipated emotion, including anticipated regret and revealed that anticipated emotion such as anticipated regret increased the variance explained in intentions by 5%, after attitudes and other TPB variables had been taken into account (Rivis et al., 2009). Thus, the findings provide strong evidence to support the argument that measures of anticipated regret should be included in the TPB. Anticipated regret meets Ajzen's (1991, p. 199) criterion for revising the TPB:

> *…the theory of planned behavior is, in principle, open to the inclusion of additional predictors if it can be shown that they capture a significant proportion of the variance in intention or behavior after the theory's current variables have been taken into account.*

The results of this study suggest that not only is the TPB not sufficient for explaining intentions, but also the mechanisms behind predictors of consumer intentions are more complex. Anticipated emotion apparently provides significant impetus for consumer intention formation; thus, emotions are important motivators in decision making. The proposed model, augmented with anticipated regret, significantly explained more variance in intentions to select an eco-friendly restaurant than the traditional TPB model. In addition, the results support the view that people respond emotionally to relative changes in their situations and compare what happened against counterfactual scenarios (Loewenstein & Lerner, 2003).

Several managerial implications arise from this study. For example, an advertising strategy could involve inducing regret for performing the target behavior. The induction of regret is likely to be most effective when the focal behavior is socially proscribed. Pro-environmental practice campaigns in restaurant industry might attempt to emphasize the negative feelings that can arise when unnecessary waste, water, and energy are utilized. Such an approach may foster a stronger sense among consumers of the inherent wrongness of exposing oneself and others to danger through non-pro-environmental wastes while cooking and eating. It would be appropriate for restaurant operators to consider investing these resources in advertisement promotion. For example, the advertisement would ask people to imagine how they would feel after having a meal at a restaurant that produces unnecessary wastes, making negative consequences in nature possible.

Table 21. Summary of the Results of Tests of the Hypotheses H1 through H4

Hypothesis	**Path**	**Result**
H1	Attitude → Intention	Supported
H2	Subjective norm → Intention	Supported
H3	Perceived control behavior → Intention	Not supported
H4	Anticipated regret → Intention	Supported

Research question (4):

(4) How does consumers' current emotional state influence the relationship between their attitude and the intention to select an eco-friendly restaurant?

From a theoretical perspective, Study II provides several new insights. The findings highlight constructive processing as an important moderator of the emotional state's effects on attitude. To examine the influence of two positive emotions (i.e., pride and compassion) on intention to select an eco-friendly restaurant, this study adopted the ATF. Consistent with the notion that pride boosts self-esteem and thereby alerts an individual that others value his or her behavior (Griskevicius, Tybur, et al., 2010), this study proposed that pride enhances the attitude toward ecological behavior for self-presentation to others.

The moderating effect of the emotional state was observed in relation to the key planned behavior variable: The effects of attitudes were more enhanced in the pride condition. The importance of the planned behavior model as the moderator of the structure is only beginning to be acknowledged. The results support the utility of examining the emotional state as a variable that may impact ecological decision making, not just in the domain of restaurant, but across other industry studies more broadly.

Emotional states interact with cognitive judgment by influencing the availability of cognitive constructs. The results demonstrate that immediate emotions can influence decisions indirectly by altering the decision maker's perceptions of probabilities or outcomes or by altering the quality and quantity of processing decision-relevant cues

(Loewenstein & Lerner, 2003). This result is consistent with the view that affect and cognition are linked in a single interdependent representational system (Forgas, 1995).

The findings support the presence of reciprocal processes between emotional and cognitive changes (Lerner et al., 2007). This study provides empirical evidence supporting the idea that appraisals associated with the emotional state can become specific information about the nature of the consumer judgment or decision at hand. Examining discrete positive emotions and developing a more extensive set of appraisal dimensions would make an important contribution to extending the ATF.

In addition, these results help us understand the interaction patterns among multiple appraisal dimensions and highlight an important domain of application—namely, the ATF was applied to improve green marketing given that consumers would make ecological decisions under emotional states. It is apparent that the understanding and prediction of behavior are likely to be improved by greater insights into the relationship between attitude and emotional states as well as how these influence intentions.

The findings provide insights into the development of the eco-friendly restaurant concept or brand and exemplify how consumer decision making is meaningfully shaped by a wide array of discrete emotions. The findings suggest that consumers are likely to want to select restaurants depending on the specific positive emotions that they are feeling. A functional approach to discrete positive emotions suggests that restaurant managers or owners might more carefully consider the method in which they attempt to make consumers feel positive and to elicit specific positive emotions in a strategic way. For example, an eco-friendly restaurant manager might try to induce a specific positive emotion rather than just a general positive affect through store atmospherics or

advertising. Specific emotions (i.e., pride in this study) may be incorporated into a booklet containing a series of persuasive messages to increase intention. Priming pride may increase the behavior.

Study II contributes to theory development in this area as well and, thus, has implications for interventions. In particular, Study II employed pictorial stimuli rather than a nonverbal stimulus to manipulate the specific emotions. For the further development of research methodologies in consumer research, nonverbal techniques to better manipulate and measure consumer acquisition are preferred (Hirschman & Holbrook, 1982).

Conclusion

Little is known about restaurant customers' decision-making processes in selecting an eco-friendly restaurant for a meal. This dissertation suggests that greater attention needs to be focused on the role of consumers' emotions in motivating ecological behavioral intention in the restaurant industry.

Study I assessed the ability of the TPB to account for consumers' intention to select an eco-friendly restaurant and investigated the role of anticipated regret accounting for a substantial proportion of the variance in intentions over the components of the TPB. The results demonstrated that this TPB extended by emotional factors had a strong predictive power, indicating its applicability to the domain of restaurant customers' environmentally conscious decision making. The findings provide a solid theoretical basis for the study of eco-friendly restaurant product purchasing behaviors. In addition,

this study suggests that the TPB needs to include emotional factors in other ecological behavior domains.

Study II revealed that the emotional state can act as a moderator of relationships within attitude models such as the TPB. In particular, emotional states (i.e., pride and compassion) were found to have a moderating effect between attitude and intention. The findings provide empirical support for using the ATF and the TPB main construct (attitude–intention) and demonstrate how this approach can predict highly specific effects and processes. This framework presents a theoretically driven approach for understanding the positive emotional states and shedding light on how different positive emotional states influence intention. Although this approach may shed less light on a particular mechanism, it facilitates the development and testing of rich and textured theories of each discrete emotion.

In sum, the findings of both Study I and II have implications for interventions to foster ecological behavior in the restaurant domain while supporting the notion that both types of emotions—namely, anticipated emotion and emotional state—are essential to decision making (Loewenstein & Lerner, 2003). Finally, this dissertation confirmed that incorporating emotion in decision-making models could greatly increase their explanatory power (Bagozzi et al., 1999; Cohen et al., 2008; Erevelles, 1998; Loewenstein & Lerner, 2003; Mellers et al., 1999). More research into emotion will have implications for a broad range of ecological behaviors characterized by a variety of motivational conflicts.

Limitations

Limitations of the present research should be recognized. First, this study examined ecological consumer behavioral intention among samples of university students. Extrapolation to the wider population remains speculative and should be done with caution. It would be valuable to replicate this study among random samples of the general population. Second, this study is concerned with the impact of focusing on negative emotion—namely, anticipated regret. Further investigation is suggested to determine the influence of positive emotion. Anticipated regret represents a substantial improvement over the TPB while retaining its key concepts. However, more empirical tests regarding positive emotion (e.g., anticipated happiness) should be produced to consider anticipated emotion as another antecedent. Furthermore, the anticipation of other emotional states may also influence decision making and volitional processes. Thus, it is possible that anticipating different emotional states may have somewhat different effects on intention formation and intention–behavior relationships (Abraham & Sheeran, 2003). Third, more research for actual behavior in an actual green restaurant purchase setting is needed to reduce extraneous variance and increase internal validity. Intended behaviors do not often translate into actual behavior in many instances. Thus, further studies in a field setting are required in future studies.

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APPPENDICES

APPENDIX 1

SURVEY PARTICIPANT INFORMATION SHEET

PROJECT TITLE: Determinants of Costumers' Choice for an Eco-friendly Restaurant

INVESTIGATORS: Yongjoong Kim, Doctoral Student, Oklahoma State University
David Njite, Ph.D, Oklahoma State University

PURPOSE: The purpose of this study is to explore the customers' opinions about an eco-friendly restaurant. In detail, this study is aiming (i). to understand customers' demand for an eco-friendly restaurant and (ii). to establish a source of future studies regarding marketing issues of an eco-friendly restaurant.

PROCEDURES: A survey and experiments should take approximately 15 minutes to complete. You will receive a questionnaire asking your opinions about eco-friendly restaurant first. After these measures, printed instructions on the page ask the subjects to stop and wait for further instructions. You will be instructed to watch and pay attention to a slide show then complete a questionnaire packet containing their eco-friendly restaurant choice intention, along with a questionnaire regarding affective experiences during the induction. Once you are done with the survey, please return it to the researcher.

RISKS OF PARTICIPATION: There are no known risks associated with this project which are greater than those ordinarily encountered in daily life.

BENEFITS OF PARTICIPATION: You may gain an appreciation and understanding of how research is conducted. In addition, your information will be used to improve the restaurant industry.

CONFIDENTIALITY: Research records will be stored securely in the researcher's office, 221 HES, Stillwater, OK 74078 and only researchers and individuals responsible for research oversight will have access to the records. No names or identification numbers will be recorded in the data file. All results will be reported as aggregated data and no individual responses will be reported. The OSU IRB has the authority to inspect consent records and data files to assure compliance with approved procedures. Data shall be kept for two years and will be reported at conferences and eventually in peer reviewed journals.

CONTACTS: You may contact any of the researchers at the following addresses and phone numbers, should you desire to discuss your participation in the study and/or request information about the results of the study: Yongjoong Kim, Doctoral Candidate, Dept. of Hotel and Restaurant Administration Oklahoma State University, Stillwater, OK 74078, (405) 744 – 7675 or yj.kim@okstate.edu, or the advisor, Dr. David Njite, Dept. of Hotel and Restaurant Administration Oklahoma State University, Stillwater, OK 74078, (405) 744 – 7675 or david.njite@okstate.edu. If you have questions about your rights as a research volunteer, you may contact Dr. Shelia Kennison, IRB Chair, 219 Cordell North, Stillwater, OK 74078, 405-744-3377 or irb@okstate.edu.

PARTICIPANT RIGHTS: Your participation in this project is appreciated and completely voluntary. You may choose not to participate at any time without any penalty or problem. By completing the survey, you are consenting to participate.

APPENDIX 2

QUESTIONNAIRE

SECTION I: YOUR EXPERIENCES OF RESTAURANT

1. How often do you visit restaurants for a meal?

   _____ time (s) per week

2. Are you most likely alone or in company when you visit restaurants?

   ☐ alone ☐ company

3. About how many people usually come along?

   ☐ 0 ☐ 1 ☐ 2
   ☐ 3 ☐ 4 ☐ 5 or more

4. What comes to your mind when you hear the term "eco-friendly" restaurants?

   _____
   _____

INSTRUCTION: There are no right or wrong answers. Your inputs are valuable to this study. Please ensure you answer all.

** The following questions focus on **"eco-friendly" restaurants**.*

***An "eco-friendly" restaurant** is defined as a restaurant establishment that offers organic, locally sourced, and/or sustainable food menu items that are beneficial to the environment and responsive to ecological concerns while implementing ecologically sound practices such as saving water and energy as well as reducing solid wastes.*

SECTION II: YOUR ATTITUDE ABOUT ECO-FRIENDLY RESTAURANTS

Please place a check mark below the appropriate number how much you believe with each of the following questions (Please ensure you answer 4 questions).

For me, selecting an eco-friendly restaurant for a meal, compared to a non eco-friendly restaurant, is:

		-3	-2	-1	0	1	2	3	
1.	*undesirable*	: ___	: ___	: ___	: ___	: ___	: ___	: ___ :	*desirable*
2.	*unpleasant*	: ___	: ___	: ___	: ___	: ___	: ___	: ___ :	*pleasant*
3.	*unfavorable*	: ___	: ___	: ___	: ___	: ___	: ___	: ___ :	*favorable*
4.	*unenjoyable*	: ___	: ___	: ___	: ___	: ___	: ___	: ___ :	*enjoyable*

SECTION III: YOUR ANTICIPATED AFFECT

Please circle an appropriate number that indicates how much you feel with each of the following statements (Please ensure you answer three questions).

1. If I did *not* select an eco-friendly restaurant for a meal, afterwards I would feel worried:

Not at all 1-----2----3----4----5----6----7 ***Very much***

2. If I did *not* select an eco-friendly restaurant for a meal, afterwards I would feel regret:

Not at all 1-----2----3----4----5----6----7 ***Very much***

3. If I did *not* select an eco-friendly restaurant for a meal, afterwards I would feel tense:

Not at all 1-----2----3----4----5----6----7 ***Very much***

1. Please rate your current mood.

Extremely bad 1----2----3----4----5----6----7----8----9 ***Extremely good***

You will watch a slideshow.
The slideshow (2minutes) will start soon.

Please, do not go to the next page until the slideshow starts!

Please, do not answer the questions until the slideshow starts!

2. During the slide show, please write one or two word(s) regarding the slide after viewing each slide.

Slide 1 _____	Slide 2 _____
Slide 3 _____	Slide 4 _____
Slide 5 _____	Slide 6 _____
Slide 7 _____	Slide 8 _____
Slide 9 _____	Slide 10 _____
Slide 11 _____	Slide 12 _____
Slide 13_____	Slide 14 _____

3. After the slide show, please rate your current mood.

Extremely bad 1----2----3----4----5----6----7----8----9 ***Extremely good***

After watching, you may answer the rest of questions on the next page.

Please, do not go to the next page until the slideshow ends!

SECTION IV: YOUR EXPERIENCED EMOTION

Please report the extent to which you experienced the following emotions while viewing slideshow.

1. Pride
   did not experienced at all 1-----2----3----4----5----6----7 *experienced very intensively*

2. Accomplishment
   did not experienced at all 1-----2----3----4----5----6----7 *experienced very intensively*

3. Achievement
   did not experienced at all 1-----2----3----4----5----6----7 *experienced very intensively*

4. Compassion
   did not experienced at all 1-----2----3----4----5----6----7 *experienced very intensively*

5. Sympathy
   did not experienced at all 1-----2----3----4----5----6----7 *experienced very intensively*

6. Moved
   did not experienced at all 1-----2----3----4----5----6----7 *experienced very intensively*

SECTION V: YOUR BEHAVIORAL INTENTIONS

In the following statements, we are interested in your behavioral intentions in relation to selecting an eco-friendly restaurant. For each statement, please place a check mark below the appropriate number.

-3 Strongly Disagree	-2 Disagree	-1 Slightly Disagree	0 Neither Agree or Disagree	1 Slightly Agree	2 Agree	3 Strongly Agree

Next time, when I go out for dinner,

	-3	-2	-1	0	1	2	3
1. I will select an eco-friendly restaurant for a meal.	☐	☐	☐	☐	☐	☐	☐
2. I will make an effort to select an eco-friendly restaurant for a meal.	☐	☐	☐	☐	☐	☐	☐
3. I am willing to select an eco-friendly restaurant for a meal.	☐	☐	☐	☐	☐	☐	☐

SECTION VI: YOUR PERCEPTION ABOUT NORM AND BEHAVIORAL CONTROL

Please place a check mark below the appropriate number that indicates how much you agree or disagree with each of the following statements (Mark √ only one per statement).

-3 Strongly Disagree	-2 Disagree	-1 Slightly Disagree	0 Neither Agree or Disagree	1 Slightly Agree	2 Agree	3 Strongly Agree

	-3	-2	-1	0	1	2	3
1. Most people who are important to me think I should select an eco-friendly restaurant for a meal.	□	□	□	□	□	□	□
2. Most people who are important to me would want me to select an eco-friendly restaurant for a meal.	□	□	□	□	□	□	□
3. People whose opinions I value would prefer that I select an eco-friendly restaurant for a meal.	□	□	□	□	□	□	□

	-3	-2	-1	0	1	2	3
4. Selecting an eco-friendly restaurant for a meal, compared to a non eco-friendly restaurant, is completely up to me.	□	□	□	□	□	□	□
5. I am confident that if I want, I can select an eco-friendly restaurant for a meal, compared to a non eco-friendly restaurant.	□	□	□	□	□	□	□
6. I have enough money to select an eco-friendly restaurant for a meal.	□	□	□	□	□	□	□
7. I have enough time to select an eco-friendly restaurant for a meal.	□	□	□	□	□	□	□

SECTION VII: INFORMATION ABOUT YOURSELF

This information will be used for research purposes only.

1. Gender ☐ Male ☐ Female

2. Age _____ years old

3. National origin (the country where you were born and raised)

_____

4. Level of education

☐ Freshman ☐ Sophomore ☐ Junior

☐ Senior ☐ 5th year or beyond ☐ Graduate student

☐ Others _____

5. What is (are) your major(s)? _____

6. Annual household income

☐ Less than $20,000 ☐ $20,000-$39,999 ☐ $40,000-$59,999

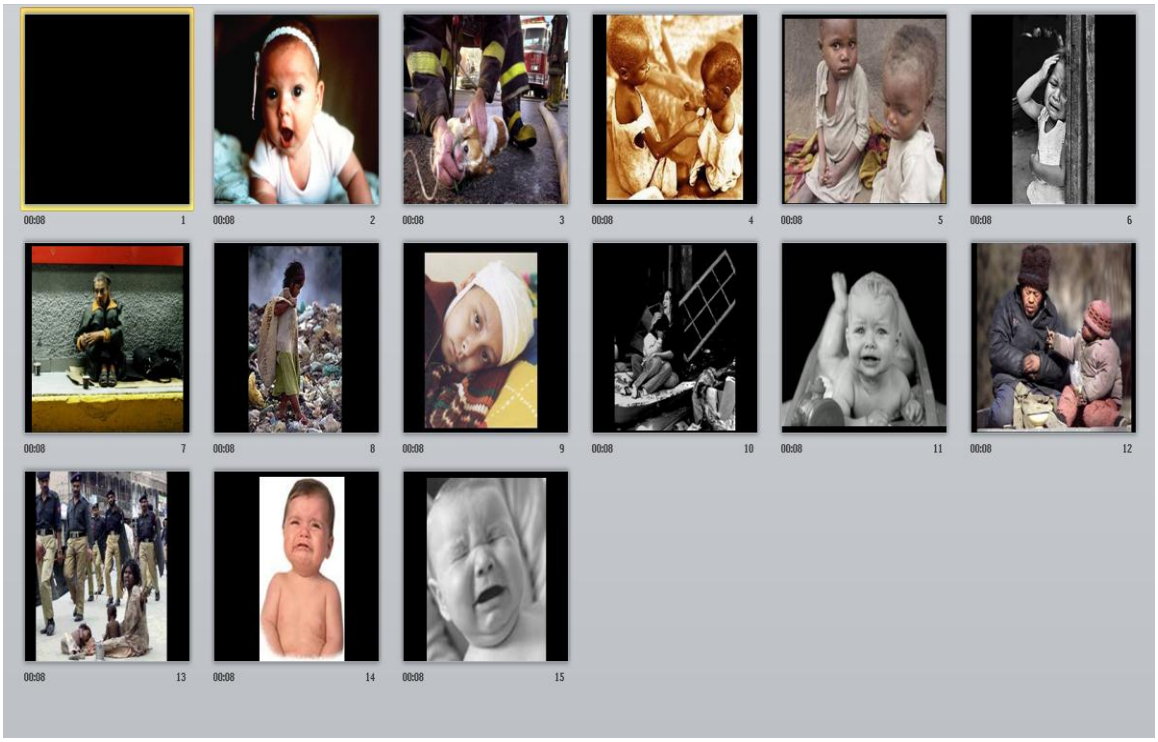
☐ $60,000-$79,999 ☐ $80,000-$99,999 ☐ $100,000 or more

APPENDIX 3

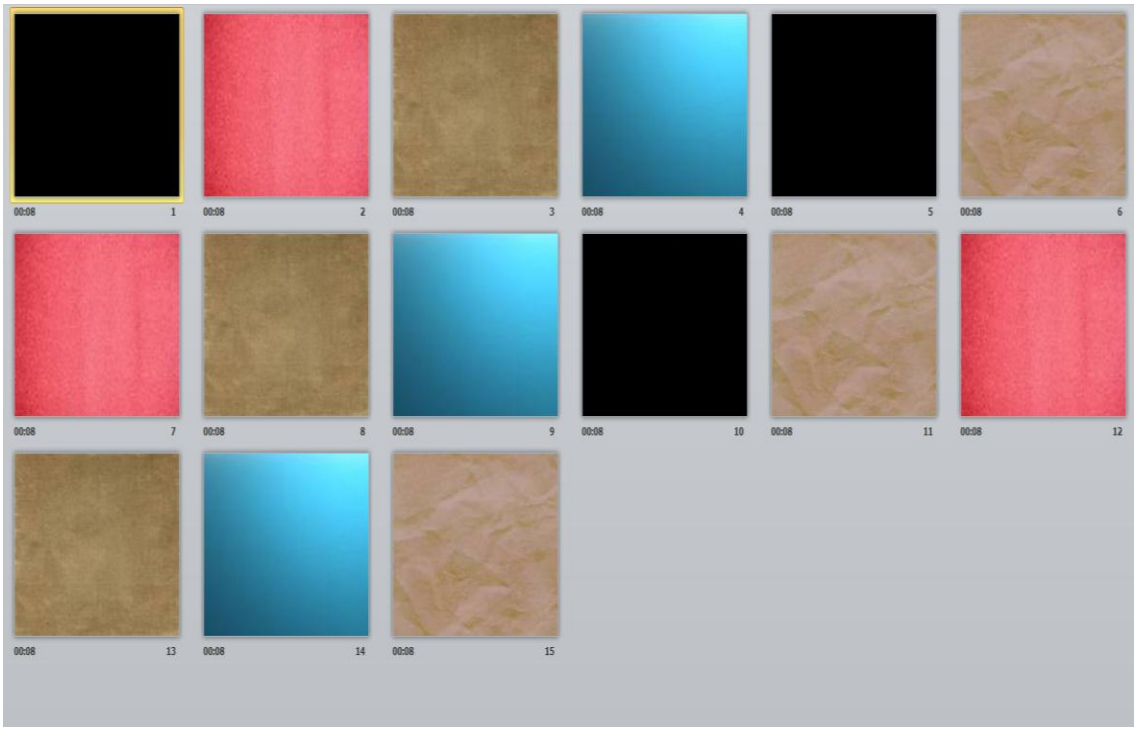
STIMULUS MATERIALS

“Pride” Slides Show

“Compassion” Slide Show



“Control group” Slide Show



APPENDIX 4

OKLAHOMA STATE UNIVERSITY

INSTITUTIONAL REVIEW BOARD (IRB) APPROVAL

Oklahoma State University Institutional Review Board

Date:	Wednesday, June 29, 2011
IRB Application No	HE1119
Proposal Title:	Determinants of Consumers' Intentions to Select Eco-friendly Restaurants
Reviewed and Processed as:	Expedited

Status Recommended by Reviewer(s): Approved Protocol Expires: 6/28/2012

Principal Investigator(s):

Yongjoong Kim
210 HES
Stillwater, OK 74078

David Njite
210 HES
Stillwater, OK 74078

The IRB application referenced above has been approved. It is the judgment of the reviewers that the rights and welfare of individuals who may be asked to participate in this study will be respected, and that the research will be conducted in a manner consistent with the IRB requirements as outlined in section 45 CFR 46.

X The final versions of any printed recruitment, consent and assent documents bearing the IRB approval stamp are attached to this letter. These are the versions that must be used during the study.

As Principal Investigator, it is your responsibility to do the following:

1. Conduct this study exactly as it has been approved. Any modifications to the research protocol must be submitted with the appropriate signatures for IRB approval.
2. Submit a request for continuation if the study extends beyond the approval period of one calendar year. This continuation must receive IRB review and approval before the research can continue.
3. Report any adverse events to the IRB Chair promptly. Adverse events are those which are unanticipated and impact the subjects during the course of this research; and
4. Notify the IRB office in writing when your research project is complete.

Please note that approved protocols are subject to monitoring by the IRB and that the IRB office has the authority to inspect research records associated with this protocol at any time. If you have questions about the IRB procedures or need any assistance from the Board, please contact Beth McTernan in 219 Cordell North (phone: 405-744-5700, beth.mcternan@okstate.edu).

Sincerely,

Shelia H. Kennison

Shelia Kennison, Chair
Institutional Review Board

APPENDIX 5

COVARIANCE MATRIX

	AT1	AT2	AT3	AT4	AR1	AR2	AR3	INT1	INT2	INT3	SN1	SN2	SN3	PBC1	PBC2	PBC3	PBC4
AT1	1.876																
AT2	1.332	1.625															
AT3	1.585	1.405	1.920														
AT4	1.395	1.376	1.470	1.663													
AR1	0.598	0.512	0.643	0.553	1.506												
AR2	0.594	0.529	0.666	0.545	1.353	1.722											
AR3	0.422	0.313	0.458	0.336	1.067	1.136	1.184										
INT1	0.867	0.652	0.786	0.704	0.651	0.635	0.532	1.741									
INT2	0.990	0.843	0.985	0.912	0.719	0.833	0.587	1.460	2.237								
INT3	0.673	0.610	0.668	0.599	0.334	0.383	0.184	0.728	1.036	1.705							
SN1	0.865	0.737	0.803	0.699	0.561	0.625	0.468	0.967	1.157	0.555	2.143						
SN2	0.883	0.747	0.841	0.699	0.543	0.619	0.396	0.980	1.238	0.681	1.840	2.244					
SN3	0.939	0.847	0.912	0.773	0.579	0.676	0.486	0.977	1.305	0.631	1.860	1.970	2.351				
PBC1	0.001	0.120	0.092	0.037	0.052	-0.079	-0.049	0.023	-0.030	0.099	0.107	0.116	0.054	1.845			
PBC2	0.085	0.108	0.128	0.057	0.173	0.107	0.088	0.268	0.142	0.289	0.314	0.427	0.307	1.260	2.304		
PBC3	0.116	-0.022	0.172	0.062	0.139	0.058	0.080	0.266	0.280	0.209	0.197	0.326	0.296	0.761	1.321	3.166	
PBC4	0.120	0.040	0.167	0.089	0.229	0.110	0.128	0.426	0.337	0.289	0.377	0.458	0.438	0.841	1.249	2.016	3.028

VITA

Yong Joong "James" Kim

Candidate for the Degree of

Doctor of Philosophy

Thesis: THE ROLE OF EMOTION IN CONSUMERS' INTENTIONS TO SELECT ECO-FRIENDLY RESTAURANTS: BROADENING AND DEEPENING THE THEORY OF PLANNED BEHAVIOR

Major Field: Human Environmental Sciences

Biographical:

Education:

Completed the requirements for the Doctor of Philosophy in Human Environmental Sciences at Oklahoma State University, Stillwater, Oklahoma in May 2012.

Completed the requirements for the Master of Science in Human Environmental Sciences at Oklahoma State University, Stillwater, Oklahoma in May 2008.

Completed the requirements for the Bachelor of Science in Business Administration and Public Administration at Sejong University, Seoul, Korea in February 2001

Experience:

Teaching Assistant at Oklahoma State University (Aug 2010 – Dec 2011)
Research Assistant at Oklahoma State University (Aug 2008 – May 2010)

Professional Community Affiliations:

Hotel & Restaurant Administration - Graduate Student Association

- President of HRAD - GSA
- Vice-president of HRAD - GSA
- Representative of HRAD - GPSGA

National Society of Minorities in Hospitality (NSMH)

- Secretary of NSMH OSU

Awards:

- Excellent Graduate Student Award: Honorary Marshals for the 2012 Spring Graduate College Commencement, Oklahoma State University
- Outstanding paper award for Excellence 2011 by Emerald Literati Network
- Award for outstanding performance in NSMH OSU, 2008
- Award for active participation in NSMH OSU, 2007

Name: Yong Joong "James" Kim Date of Degree: May, 2012

Institution: Oklahoma State University Location: Stillwater, Oklahoma

Title of Study: THE ROLE OF EMOTION IN CONSUMERS' INTENTIONS TO SELECT ECO-FRIENDLY RESTAURANTS: BROADENING AND DEEPENING THE THEORY OF PLANNED BEHAVIOR

Pages in Study: 139 Candidate for the Degree of Doctor of Philosophy

Major Field: Human Environmental Sciences

Scope and Method of Study: Restaurants have incorporated eco-friendly business practices into their products and services following the green consumerism trend. Theoretical and empirical investigations regarding the formation of consumers' intentions to select eco-friendly restaurants for a meal have been ongoing. This study proposes and explores the formation of consumers' intentions to select eco-friendly products while proposing that emotion can play a substantial role in this ecological decision-making process. This study contributes to the discipline by (1) providing a better understanding of how to predict consumers' ecological behavior based on an understanding of consumers' choice of eco-friendly restaurants; (2) extending the Theory of Planned Behavior (TPB) literature within the environmental context; and (3) further validating prior research regarding the influence of emotion in the decision-making process. This study utilized both the experimental design and survey techniques to collect data.

Findings and Conclusions: The results demonstrated that the TPB extended by anticipated regret had a significant predictive power, indicating its applicability to the domain of consumers' environmentally conscious decision-making. In addition, this study revealed that emotional state could act as a moderator of relationships within attitude models such as the TPB. The findings have implications for interventions to foster ecological behavior in the restaurant domain while supporting the notion that both types of emotions—namely, anticipated emotion and emotional state—are essential to decision making. Finally, this study confirmed that incorporating emotion in decision-making models could significantly increase their explanatory power. The findings provide further insights into consumers' decision-making processes that are essential for the development of green marketing strategies in the restaurant context.

ADVISER'S APPROVAL: Dr. David Njite